County Council of Shropshire.

REPORT

BY THE

COUNTY MEDICAL OFFICER OF HEALTH

ON THE

VITAL STATISTICS AND SANITARY CONDITION OF SHROPSHIRE DURING THE YEAR 1906.

INCLUDING A

SUMMARY OF THE ANNUAL REPORTS OF THE DISTRICT MEDICAL OFFICERS OF HEALTH, AND A REPORT ON THE ADMINISTRATION OF THE MIDWIVES ACT.

JAMES WHEATLEY, M.D., D.P.H.

SHREWSBURY,
June, 1907.

TO THE CHAIRMAN AND MEMBERS OF THE SANITARY COMMITTEE OF THE SHROPSHIRE COUNTY COUNCIL.

GENTLEMEN,

I have the honour to present my Annual Report for 1906.

The general arrangement of previous reports has been continued in the present one. The second part of the report is a condensed summary of the reports for the various districts. In the first part each subject is dealt with as affecting the whole County.

A report is given on the administration of the Midwives Act.

I am, Gentlemen,
Your obedient Servant,
JAMES WHEATLEY.

COUNTY HEALTH OFFICE,
TALBOT CHAMBERS,
June, 1907.

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PART 1.

THE ADMINISTRATIVE COUNTY.

POPULATION.

The population for the whole Administrative County was in 1891, 236,827, and in 1901, 239,783. In 1901 the total population of the urban and rural districts, containing a small part of Staffordshire, was 240,606, and it is estimated to be 242,229 in the middle of 1906. This is the population on which the county rates are calculated.

The populations on which the district rates are calculated are those estimated from local knowledge by the Medical Officers of Health. In some of the districts corrections of the population have been made on account of the public institutions.

The population of the Registration County is estimated at the middle of 1906 to be 261,963. It includes certain small portions of the Administrative Counties of Chester, Flint, Denbigh, Montgomery, Hereford, Worcester and Stafford. It does not, however, include certain portions of the Administrative County of Salop, which are situated in the Registration Counties of Montgomery, Radnor, Worcester, and Stafford.

The registration county is the area used by the Registrar-General for his mortality statistics relating to this county. It is also the area used by the Local Government Board for vaccination statistics.

The inconvenience caused by the lack of correspondence between registration and administrative districts has been referred to in previous reports. It is principally on account of the fact that registration counties do not correspond with administrative counties, nor registration districts or sub-districts with sanitary districts, that the very valuable information contained in the Registrar General's Reports is of comparatively little use to those engaged in sanitary administration. It is extremely desirable that the administrative districts should be co-terminous with the registration districts and sub-districts.

In this Report the statistics refer to the Administrative County unless stated otherwise.

Table 1.

POPULATION, &c., IN URBAN AND RURAL DISTRICTS.

URBAN DISTRICTS.	Inhabited houses.			Population.				
	1891	1901	Average No. of persons to each house.	1891	1901			Percentage, Increase or Decrease between 1891 & 1901.
					Males.	Females.	Total.	
Bishop's Castle ..	361	354	3·9	1586	666	712	1378	— 13·1
Bridgnorth ..	1215	1300	4·6	5865	2791	3261	6052	+ 3·2
Church Stretton ..	131	147	5·5	770	399	417	816	+ 5·9
Dawley	1523	1633	4·6	6996	3940	3582	7522	+ 7·5
Ellesmere	392	425	4·5	1830	868	1077	1945	+ 6·2
*Ludlow	959	1372	4·6	4460	3065	3308	6373	+ 2·0
Newport	714	720	4·5	3403	1518	1723	3241	— 4·7
Oakengates ..	2117	2187	4·9	10680	5739	5167	10906	+ 2·0
Oswestry	1778	2083	4·6	8496	4507	5072	9579	+ 12·7
Shrewsbury ..	5600	6065	4·6	26967	13423	14972	28395	+ 5·3
‡Wellington ..	1284	1327	4·7	5909	3049	3234	6283	+ 6·3
Wem	406	453	4·7	1878	987	1162	2149	+ 14·4
Wenlock	3447	3568	4·4	15703	7998	7868	15866	+ 1·0
Whitchurch ..	1006	1129	4·6	4930	2476	2745	5221	+ 5·9
All Urban Districts	20933	22763	4·5	99473	51426	54300	105726	4·4
RURAL DISTRICTS.								
Atcham	4264	4329	4·8	21144	10314	10581	20895	— 1·1
Bridgnorth ..	1934	1886	4·5	9185	4200	4373	8573	— 6·6
Burford	277	263	4·6	1361	600	633	1233	— 9·4
Chirbury	899	812	4·3	4084	1796	1743	3539	— 13·3
Church Stretton ..	1019	1005	4·4	4631	2242	2237	4479	— 3·3
Cleobury Mortimer	1251	1292	5·2	5911	3717	3003	6720	+ 13·6
Clun	1585	1487	4·5	7459	3429	3395	6824	— 8·5
Drayton	2613	2655	4·4	11969	5703	6005	11708	— 2·1
Ellesmere	1649	1658	4·7	8119	3963	3948	7911	— 2·5
*Ludlow	2242	2003	4·7	10863	4904	4681	9585	+ 5·0
Newport	1302	1284	4·7	6327	3071	2962	6033	— 4·6
Oswestry	3213	3220	4·5	15107	7357	7370	14727	— 2·5
†Shifnal	1923	1918	4·6	9120	4335	4509	8844	— 3·0
Teme	388	388	4·7	1870	970	876	1846	— 1·3
‡Wellington ..	2271	2499	4·7	10780	6000	5773	11773	+ 9·2
Wem	1801	1840	4·4	8241	4119	4147	8266	+ 0·3
Whitchurch ..	423	424	4·5	2031	956	968	1924	— 5·2
All Rural Districts	29054	28963	4·6	138202	67676	67204	134880	— 1·08

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* The 1901 figures for Ludlow Borough include the additions made in November, 1901, and the same numbers have been deducted from the Ludlow Rural District, viz., 385 inhabited houses, 894 males and 927 females. The percentage increase or decrease has been calculated without these additions and deductions.

† This district (Shifnal) includes 184 inhabited houses, 427 males and 396 females in the administrative County of Stafford.

‡ The population of the added part of Wellington, about 827, has not been transferred in this table from the Rural to the Urban District.

Table 2.

POPULATION IN AGE PERIODS.

	URBAN DISTRICTS.		RURAL DISTRICTS.	
Age period.	Total.	Percentage at each age period.	Total.	Percentage at each age period.
Under 1	2462	2·4	2965	2·2
1—5	9255	8·9	12171	8·9
5—10	11094	10·7	15176	11·2
10—15	10818	10·4	14275	10·5
15—25	19671	18·9	22940	16·9
25—35	15508	14·9	18610	13·7
35—45	12132	11·7	16007	11·8
45—55	9337	9·0	12743	9·4
55—65	7234	7·0	10719	7·9
65—75	4522	6·1	7033	7·6
75—85	1680		2859	
85—95	189		373	
95 and upwards	3		7	
	103905		135878	

A comparison of the distribution of the population in urban and rural districts is very instructive. The larger percentage under one year in the urban districts indicates a higher birth-rate. In the period 1—5 years, this is equalised by the lower death-rate of the rural districts, and in the periods 5—10 and 10—15 the percentage is slightly higher in the rural than in the urban districts. At 15 the migration from the country to the towns begins, and from that age until 45 the percentage is considerably higher in the urban districts, but above 45 years, *i.e.*, at the periods of high mortality rates, the percentage is distinctly higher in the rural districts.

This difference in the distribution of the population necessarily influences the death-rates apart from any consideration of health conditions. In order to compare one district with another, or one district with the whole country, it is necessary to prepare factors of correction which remove the disturbing influence due to unequal distribution of age and sex. The factor for correcting the rates of the Registration County of Salop is ·8654, that for the Administrative County is ·8918, that for the combined Urban Districts is ·9353, and that for the Combined Rural Districts is ·8622.

These figures have been applied to Table 5 in order to correct the crude death-rates. It will be seen by reference to this Table that the corrected rates are very considerably lower, especially in the rural districts, than the crude rates.

In order to have quite comparable figures, factors of correction should be worked out for each disease. Disease rates in this County thus corrected would, as a rule, be lower than the crude rates, especially in the rural districts, and this would be very markedly so, in the case of cancer. On the contrary the phthisis rate in the rural districts would be slightly increased by the correction.

MARRIAGES.

The number of marriages in the Registration County for 1906 was 1,663, compared with 1823 in 1905. The marriage-rate was 12·7 compared with 13·9 in 1905, 13·2 in 1904, 13·4 in 1903, and 14·2 in 1902.

BIRTHS.

The total number of births in the County was 5988 giving a birth-rate of 24·7 compared with 25·8 in 1905, and 26·4 in 1904. The Urban rate was 25·0 and the rural rate was 24·4.

I. (URBAN). STATISTICS FOR 1906.

URBAN DISTRICTS.	Estimated Population 1906	Number of Births.	Birth-rate.	DEATHS UNDER 1 YEAR OF AGE.		DEATHS AT ALL AGES.		Death-rates after correction for deaths of non-residents dying in the districts, and of residents dying outside.	DEATH-RATES FROM VARIOUS CAUSES.							
				Number.	Rate per 1000 Births.	Number.	Death-rate.		Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.
Bishop's Castle	1330	32	24·4	1	31	34	25·5	21·4	·00	·77	3·07	·00	1·54	·00	2·31	·00
Bridgnorth	6060	131	21·6	12	91	103	17·0	15·5	·82	·00	1·48	·16	·82	·66	1·98	1·81
Church Stretton	1311	20	16·0	1	50	15	11·4	7·2	·80	·00	·00	·00	·00	·00	·80	·00
Dawley	7670	200	26·0	33	165	113	14·7	16·0	1·43	·00	·65	·26	1·82	2·98	1·43	1·17
Ellesmere	1987	48	24·1	4	83	40	20·1	16·1	1·01	·00	1·01	·50	1·01	·50	1·01	·50
Ludlow	6570	139	21·2	19	137	116	17·6	17·3	·30	·15	1·22	·61	1·83	·76	1·52	1·67
Newport	3189	79	25·3	10	127	68	21·3	19·5	·96	·32	1·28	·96	1·60	·64	2·56	·64
Oakengates	11039	313	28·3	35	112	168	15·2	16·9	1·45	·72	·72	·18	·63	1·45	·99	·81
Oswestry	9950	263	26·4	21	80	136	13·6	15·7	·80	·30	2·11	·40	·40	·90	1·71	1·21
Shrewsbury	29288	689	23·3	78	113	427	14·5	14·7	1·42	·64	1·08	·38	·98	·91	1·66	1·05
Wellington	7537	179	23·7	25	139	124	16·4	15·2	·79	·13	·79	·79	1·32	·66	1·59	·79
Wem	2240	56	25·0	5	89	34	15·2	15·2	·00	1·34	·44	·44	·89	1·34	·44	·89
Wenlock	15914	426	26·8	43	101	260	16·3	16·3	2·07	·56	1·38	·88	·81	1·06	2·38	·75
Whitchurch	5374	154	28·9	14	91	87	16·2	16·5	·56	·18	1·69	·37	·75	·56	2·44	2·06
Whole of Urban Districts	108958	2729	25·0	301	110	1725	15·8	15·9	1·21	·43	1·20	·47	1·00	1·05	1·72	1·07
Whole of Urban and Rural Districts	242229	5988	24·7	579	97	3629	14·9		·88	·41	1·04	·36	1·01	·98	1·72	1·00

I. (RURAL). STATISTICS FOR 1906

RURAL Districts.	Estimated Population 1906	Number of Births.	Birth-rate.	Deaths under 1 year of Age.		Deaths at all Ages.		Death-rates after correction for deaths of non-residents dying in the districts, and of residents dying outside.	Death-rates from Various Causes.							
				Number.	Rate per 1000 Births.	Number.	Death-rate.		Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases	Bronchitis.	Pneumonia.	Heart Diseases	Cancer
Atcham	20810	493	24·8	33	67	405	19·4	13·5	·55	·55	1·11	·25	1·31	·96	1·51	·91
Bridgnorth	8600	209	24·3	15	71	111	12·9	14·3	·70	·00	1·04	·00	1·62	·70	1·51	·93
Burford	1233	29	23·5	0	0	18	14·5	12·1	·00	·81	·81	·00	·00	·00	·00	·00
Chirbury	3540	65	18·3	6	92	37	10·4	11·5	·28	·00	1·41	·00	1·13	·28	2·54	·84
Church Stretton	4420	111	24·8	12	108	61	13·8	16·3	1·11	·89	·44	·00	1·56	·89	1·56	·67
Cleobury Mortimer ..	6450	191	29·6	14	73	87	13·4	13·4	·93	·31	·46	·31	·93	1·24	2·79	·46
Clun..	6640	158	23·7	18	114	88	13·3	15·2	1·05	·00	1·05	·15	1·65	·60	2·40	1·35
Drayton	11580	288	24·8	23	80	160	13·8	14·0	·69	·17	1·03	·34	1·03	·95	2·24	·77
Ellesmere	7911	185	23·3	15	81	97	12·2	13·6	1·13	·25	2·02	·38	·63	·88	1·13	1·39
Ludlow	9622	241	25·0	25	103	108	11·2	12·4	·21	·73	·52	·00	·62	1·14	1·97	·52
Newport	6026	136	22·5	11	81	82	13·6	14·9	·99	·49	·99	·66	·99	1·15	·82	·99
Oswestry	14900	381	25·5	32	84	228	15·3	14·5	·33	·54	·47	·60	·74	·60	1·54	1·54
Shifnal	8800	219	24·8	18	82	119	13·5	13·6	·23	·45	1·01	·57	·57	·68	1·25	1·13
Teme	1846	36	19·5	6	166	24	13·0	13·0	·00	·00	1·62	·00	·54	·54	1·08	1·08
Wellington	11573	292	25·2	35	120	151	13·0	13·8	·95	·26	·95	·17	·60	1·81	2·16	·60
Wem	8265	181	21·9	10	55	106	12·8	13·3	·24	·48	·36	·24	1·33	·84	1·45	·84
Whitchurch	1892	44	23·0	5	114	22	11·6	12·6	1·05	·52	·52	·00	2·10	·52	1·57	·52
Whole of Rural Districts ..	133271	3259	24·4	278	85	1904	14·3	13·8	·62	·39	·91	·27	1·02	·92	1·71	·94
Whole of Urban and Rural Districts	242229	5988	24·7	579	97	3629	14·9		·88	·41	1·04	·36	1·01	·98	1·72	1·00

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Table 3.

	Births to 1000 Living.								Illegitimate Births to 1000 Births.							Males Born to 1000 Females Born.						
	Ten years. 1890—1899	1900	1901	1902	1903	1904	1905	1906	Ten years. 1890—1899	1900	1901	1902	1903	1904	1905	Ten years. 1890—1899	1900	1901	1902	1903	1904	19
hire .. . istration County)	26·8	25·7	26·2	26·5	26·4	26·2	25·6	24·7	72	62	59	60	64	67	59	1034	1032	1004	1021	1029	1033	10
d and Wales	30·0	28·7	28·5	28·6	28 4	27 9	27·2	27·0	42	40	40	39	39	40	40	1036	1033	1039	1039	1035	1037	10

The birth-rate after being fairly well maintained during the last six years shows a considerable drop, the decrease, however, being almost altogether confined to the urban districts. The birth-rates for the various districts are given on Table I, Urban and Rural. As pointed out in previous reports these birth-rates calculated on the whole population have not much meaning, and that for purposes of comparison of one district with another or of a district with the whole country, or of a district with itself at different periods, it is far preferable to base the rates upon the number of females between 15 and 45, the active child-bearing period.

The following rates are calculated in this manner :—

	Birth-rate per 1000 females between ages of 15 and 45.
England and Wales, 1906	108
Shropshire Administrative County, 1906	112
Shropshire Urban Districts, 1906	107
Shropshire Rural Districts, 1906	117

The real birth-rate therefore is nearly 4 per cent. higher in Shropshire than in the country as a whole, although, as ordinarily calculated, it would appear to be nearly 8 per cent. lower.

Table 4.

BIRTH-RATES (1906) per 1000 FEMALES living between the AGES 15 and 45.

URBAN DISTRICTS.	
Bishop's Castle	112
Bridgnorth	84
Church Stretton	56*
Dawley	142
Ellesmere	91
Ludlow	87
Newport	103
Oakengates..	152
Oswestry	106
Shrewsbury	92
Wellington	82
Wem	104
Wenlock	127
Whitchurch	114
Combined Urban Districts	107

RURAL DISTRICTS.	
Atcham	112
Bridgnorth	113
Burford	105
Chirbury	93
Church Stretton	125
Cleobury Mortimer	162
Clun..	118
Drayton	111
Ellesmere	104
Ludlow	119
Newport	115
Oswestry	129
Shifnal	109
Teme	98
Wellington	129
Wem	105
Whitchurch	102
Combined Rural Districts	117

Figures not very reliable owing to expansion of District since 1901 Census.

It is clear therefore that the real birth-rates are considerably higher in the rural than in the urban districts, and in fact the difference is much greater than is at first apparent. If the semi-rural and partly mining districts of Dawley, Wenlock, and Oakengates are transferred to the rural districts, the urban rate is 95 and the rural rate 121. Again the census returns show that amongst the married women between 15 and 45 in the urban and rural districts there is a larger proportion at the lower age period in the urban district, and this should favour a high birth-rate. Taking all these facts into consideration it is very obvious that even in Shropshire, where the grosser evils of large towns are comparatively non-existent, the factors that are making for a decreased birth-rate are much more operative in the town than in the country districts. This is a matter of very considerable importance in forming a correct estimate of the effect on the nation of the vast migration from the country to the towns, that has been taking place for many years past. It is frequently supposed, that the higher infantile mortalities in towns are balanced to some extent by the higher birth-rates, but on examination the higher birth-rates of the towns prove to be as deceptive throughout the country generally as they are in this county.

The following extract from the Registrar General's Report for 1905 bears upon the matter :—

> " The figures in the Table show that the birth-rate, based on total population, was " from 15 to 18 per cent. greater in the towns than in the country districts ; if, however, " the comparison be based on the female population of conceptive ages, it is found that " the fertility of women living in the country was 8 to 11 per cent. greater than that of " women residing in towns."

These facts appear to show that life in towns not only increases mortality rates but decreases reproduction, and that for their maintenance it is essential that they should have a vigorous and numerous country population to draw upon. In Shropshire those districts have consistently had the highest birth-rates, which are practically rural, so far as separation of houses is concerned, but in which the people are to a considerable extent engaged in coal mining, *e.g.*, Dawley, Oakengates, Wenlock, and Cleobury Mortimer (mining confined to a small part). It is probable that the higher birth-rates in these districts is due to the fact that the people have on the whole higher wages than in the agricultural districts, whilst living to a great extent a country life, and that the women are not employed to any extent in industrial occupations. The Registrar General's Report for the whole country points to the same conclusion ; " Speaking generally it may be noted that in those counties in which high fertility rates were recorded a large proportion of the male population, according to the last census, was engaged in coal mining, and that on the other hand, the low fertility rates were recorded, mainly in agricultural and manufacturing counties." One inference that may be drawn is that the multiplication of manufacturing villages instead of the further increase of the towns is a condition much to be desired ; and another is that the employment of married women in industrial occupations should be discouraged as much as possible.

DEATHS.

The number of deaths in the county was 3,629, compared with 3,606 in 1905 and 3,808 in 1904 ; and the death-rate was 14·9, or exactly the same rate as in the previous year. Details with regard to the deaths and death-rates in the various districts are given in Table I. and II., (urban and rural).

The deaths in the public institutions have been distributed so far as possible, amongst the districts to which they belong, with the result that fairly correct death-rates have been obtained. The total number of deaths deducted from the various districts was 325, and the number added was 275, the final result being a reduction of the total deaths by 50, of which the deaths of out-county patients in the County Asylum account for a considerable proportion. The weak point in this correction is that we do not hear of all the deaths of Shropshire residents occurring in public institutions outside the county. Although these omissions will not be sufficient to appreciably affect the general death-rate they may be sufficient to appreciably affect the death-rate of a disease like cancer, which is treated to such a considerable extent in the large hospitals.

The highest death-rates were in Bishop's Castle, 21·4, Newport (Urban) 19·5, Ludlow 17·3, Oakengates 16·9, Wenlock and Church Stretton (Rural) 16·3, Whitchurch (Urban) 16·2.

The death-rate for the combined urban districts after correction for public institutions was 15.9, and that of the combined rural districts was 13·8. The death-rates at the different age periods in the two groups of districts is instructive.

DEATH-RATES.

Age Periods.	Urban Districts.	Rural Districts.
Under 1 year	122·2	95·6
1—5	14·1	7·2
5—15	2·8	1·9
15—25	2·9	3·7
25—65	11·9	9·4
65 and upwards	91·4	79·5

The death-rates in the urban districts were not only in excess of the rural districts but were very markedly in excess at every age period with one exception. The death-rates under one year are dealt with under the heading of infantile mortality. The lower death-rate in the rural districts at the age 1—5 was due to a smaller number of deaths from almost all causes, but particularly from infectious and tubercular diseases. The only rural death-rate that exceeded the corresponding urban one, was that for the age period 15—25, and it is extremely probable that this rate was due to circumstances unconnected with the relative sanitary conditions of the urban and rural districts. Persons at this age, who have migrated from the country to the towns, have not usually made a home for themselves, and if disabled through sickness they frequently return to the country. There can be no doubt that this is the true explanation of the high rural death-rate at the age period 15—25.

Table 5.

CRUDE AND CORRECTED DEATH RATES.

URBAN AND RURAL DISTRICTS OF SHROPSHIRE AND ENGLAND AND WALES.

Period.	Shropshire.		England and Wales.	Urban Districts of Shropshire.		Urban Counties of England and Wales.	Rural Districts of Shropshire.		Rural Counties of England and Wales.
	Crude Rates.	† Corrected Rates.		Crude Rates.	† Corrected Rates.	† Corrected Rates.	Crude Rates.	† Corrected Rates.	† Corrected Rates.
1906	14·9	13·3	15·4	15·8	14·8	*	14·3	12·3	*
1905	14·9	13·3	15·2	15·4	14·4	16·5	14·5	12·5	13·2
1904	15·7	14·0	16·2	16·6	15·5	17·9	15·1	13·0	13·5
1903	14·8	13·2	15·4	15·8	14·7	16·9	14·3	12·3	12·8
1902	15·1	13·4	16·3	16·7	15·6	17·8	13·9	11·9	13·7
1901	15·5	13·8	16·9	16·2	15·1	17·7	15·0	12·9	15·3
1900	16·4	14·6	18·2	17·7	16·5	18·9	15·5	13·3	16·6

* These figures are not yet available.

† These are the rates of mortality that would result if the age and sex constitution of the population of the districts were identical with those of the population of England and Wales at the Census, 1901.

INFANTILE MORTALITY.

The infantile death-rate per 1000 births was 97, compared with 93 in 1905, and 115 in 1904. The rate for England and Wales was 133, and excluding 218 towns 116. In comparison therefore with the rest of the country the rate must be considered favourable, but still there is room for great reduction.

The rate for the combined urban districts was 110, and that for the combined rural districts was 85, showing a difference of nearly 30 per cent.

On Table 1 (urban and rural) are given the infantile deaths and death-rates for the various districts, and on Table V is a detailed analysis of the deaths with respect to cause and age. The slight excess of the deaths in 1906 over those of the previous year was almost entirely due to the prevalence of whooping cough.

TABLE V. (URBAN).

INFANTILE MORTALITY DURING THE YEAR 1906.

DEATHS FROM STATED CAUSES IN WEEKS AND MONTHS UNDER ONE YEAR OF AGE.

CAUSE OF DEATH.	WEEKS.				**Total** under 1 month.	MONTHS.											**Total** under 1 year.
	Under 1	1—2	2—3	3—4		1—2	2—3	3—4	4—5	5—6	6—7	7—8	8—9	9—10	10—11	11—12	
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Whooping Cough	..	..	..	..	..	3	3	5	2	4	1	..	..	2	1	3	24
Diarrhœa, all forms	..	..	1	1	2	1	..	..	2	1	..	1	1	2	..	..	10
Enteritis	..	1	1	2	4	3	..	5	..	1	2	..	1	2	..	1	19
Gastritis, Gastro-intestinal Catarrh	1	1	..	..	2	2	..	2	..	..	1	..	..	..	..	1	8
Premature Birth	32	6	3	1	42	4	2	..	2	..	..	..	..	..	..	..	50
Congenital Defects	2	1	3	1	7	..	1	..	..	..	1	..	..	..	..	..	9
Injury at Birth	2	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	2
Want of Breast Milk	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Atrophy	10	3	5	2	20	5	6	5	4	..	1	2	..	1	1	1	46
Tuberculous Meningitis	..	..	..	..	..	..	..	2	..	..	1	1	..	1	..	..	5
Tuberculous Peritonitis	..	..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	3
Other Tuberculous Diseases ..	..	..	..	..	..	..	1	..	1	..	..	3	1	1	..	..	7
Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rickets	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Meningitis (not Tuberculous) ..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	..	1	4
Convulsions	8	..	..	1	9	5	2	3	1	3	2	..	1	..	1	2	29
Bronchitis	..	..	..	2	2	2	3	1	2	1	2	1	1	1	1	2	19
Laryngitis	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Pneumonia	..	..	1	2	3	3	1	3	4	2	3	3	4	3	7	4	40
Suffocation	1	..	..	..	1	1	1	..	..	..	1	..	..	..	..	..	4
Other causes	6	..	2	..	8	4	1	1	..	1	1	..	..	1	1	..	18
TOTALS	62	12	16	12	102	34	22	29	19	15	16	12	9	14	12	17	301

TABLE V. (RURAL).

INFANTILE MORTALITY DURING THE YEAR 1906.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Weeks.				**Total** under 1 month.	Months.											**Total** under 1 year.
	Under 1	1—2	2—3	3—4		1—2	2—3	3—4	4—5	5—6	6—7	7—8	8—9	9—10	10—11	11—12	
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	2
Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1
Whooping Cough	..	1	..	1	2	1	1	2	5	..	1	2	2	1	2	3	22
Diarrhœa, all forms	..	1	..	..	1	1	..	1	1	..	1	2	..	1	..	..	8
Enteritis	..	..	..	..	..	1	2	..	..	..	2	..	..	1	..	2	8
Gastritis, Gastro-intestinal Catarrh	..	..	..	..	..	..	1	3	..	..	..	..	..	..	..	..	4
Premature Birth	41	6	2	1	50	3	..	1	..	..	..	..	..	..	..	..	54
Congenital Defects	6	3	..	1	10	1	..	..	..	..	1	..	..	..	..	..	12
Injury at Birth	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Want of Breast Milk	1	..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	3
Atrophy	10	4	6	3	23	6	6	3	1	1	3	2	..	..	1	..	46
Tuberculous Meningitis	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
Tuberculous Peritonitis	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	3
Other Tuberculous Diseases ..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Erysipelas	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Syphilis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rickets	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Meningitis (not Tuberculous) ..	..	..	..	..	..	..	1	..	1	..	1	..	1	..	..	..	4
Convulsions	8	1	1	1	11	6	4	1	..	3	1	1	1	..	..	1	29
Bronchitis	2	1	2	..	5	2	2	2	1	2	1	2	2	3	1	1	24
Laryngitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Pneumonia	2	1	..	1	4	3	5	1	3	2	2	3	3	1	5	3	35
Suffocation	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	2
Other causes	6	1	2	1	10	..	1	1	1	1	..	..	..	..	..	..	14
Totals	77	19	13	10	119	27	24	17	16	9	14	13	10	7	11	11	278

The districts with the highest mortalities were Dawley 165, Ludlow (Urban) 137, Wellington (Urban) 139, and Teme, 166. These districts are too small for one year's statistics to be of much importance, and Teme Rural District is so small that for any period of less than ten years the rate must be subject to great fluctuations. The difficulty is illustrated by the fact that districts with the highest mortalities in 1905 had mortalities below the average in 1906. It is however of great importance that one should have a reliable guide as to the infantile mortality in the various districts, and for this purpose the following table has been got out giving the average infantile mortality in each district for the last seven years, and the percentage above or below the average for the urban and rural districts.

Table 6.

AVERAGE INFANTILE MORTALITY IN THE URBAN AND RURAL DISTRICTS FOR THE SEVEN YEARS 1900—1906.

URBAN DISTRICTS.	Rate per 1000 births for years 1900—1906	Percentage above or below the average for Urban Districts	RURAL DISTRICTS.	Rate per 1000 births for years 1900—1906	Percentage above or below the average for Rural Districts.
Bishop's Castle	77·1	—31·9	Atcham	89·1	— 5·6
Bridgnorth	107·6	— 5·0	Bridgnorth	90·4	— 4·2
Church Stretton	94·6	—16·5	Burford	55·0	—41·7
Dawley	111·6	— 1·5	Chirbury	92·7	— 1·8
Ellesmere	96·3	—15·0	Church Stretton	94·9	+ 0·6
Ludlow	112·6	— 0·6	Cleobury Mortimer	93·3	— 1·2
Newport	112·7	— 0·5	Clun	105·4	+11·6
Oakengates	137·9	+21·7	Drayton	122·7	+30·0
Oswestry	102·6	— 9·4	Ellesmere	99·8	+ 5·7
Shrewsbury	130·1	+14·8	Ludlow	89·8	— 4·8
Wellington	110·3	— 2·6	Newport	108·1	+14·5
Wem	95·4	—15·8	Oswestry	94·1	— 0·3
Wenlock	102·3	— 9·7	Shifnal	97·0	+ 2·8
Whitchurch	101·7	—10·2	Teme	129·6	+37·3
			Wellington	93·6	— 0·8
			Wem	66·7	—29·3
			Whitchurch	72·9	—22·8

Even for this extended period the figures cannot be used for very positive deductions with respect to the very small districts of one or two thousand inhabitants, but for the average sized districts of eight thousand and upwards, deductions may with some certainty be drawn.

Amongst the urban districts, the only ones exceeding the average are Oakengates and Shrewsbury. There can be no doubt there is much scope for special work in this direction in both these districts. With regard to the rural districts, those strikingly in excess are Teme (37·3 per cent.), Drayton (30 per cent.), Newport (14·5 per cent.), and Clun (11.6 per cent.),

Teme is a very small district with a population of 1,800 to 1,900, and consequently even for a period extending over seven years it is liable to considerable accidental variation. Still there is sufficient evidence of excessive mortality, particularly considering the strictly rural character of the district, to make it very desirable that further investigation should be undertaken, and that all practicable measures should be taken for reducing the mortality. As an explanation of the high mortality for 1906, Dr. Griffiths says that three out of the six deaths were due to congenital defects or premature birth. Drayton, with a population of over 11,000 should, in a seven year period, yield statistics fairly representative of the conditions of the district. That it should have in this period an infant mortality 30 per cent. in excess of that of the rural districts of the county is somewhat serious, and the excess is certainly not explained by the general character of the district. Dr. Macqueen made a special report on this question during the year, and came to the conclusion that there was no marked difference between the mortality in the urban and rural parts of the district. He showed that many of the deaths were due to preventable causes, such as improper feeding, and exposure, and that a considerable number were due to tuberculosis, probably from tuberculous milk. That the mortality, considering the character of the district is high, has undoubtedly been proved, and the Council should make a serious effort to reduce it. Probably the somewhat excessive mortality in the Newport Rural District is mostly due to that part of the area where coal mining is the principal occupation.

The high mortality in Dawley for the year 1906 is ascribed by Dr. Gepp to the prevalence of whooping cough.

In Shrewsbury 50 per cent. of the deaths are put down to errors of diet and management. The medical officers for Ludlow Rural and Chirbury Rural Districts also call the attention to the evil results of injudicious feeding and management of infants; three-fourths of the deaths under one year in the Chirbury Rural District being attributed to this cause.

Dealing with the county as a whole it will be seen by reference to Table V (urban and rural) that many of the deaths were from causes of a preventable nature. In order to form a clear conception of the number of deaths from preventable causes, these have been extracted and classified according to their probable causation. It is not suggested that even with the greatest care the whole of these deaths might have been prevented, but there can be no doubt that with reasonable care and knowledge they would have been lessened by a very large percentage.

(1) Infantile deaths, of which a considerable proportion were no doubt due to errors of feeding:

	URBAN DISTRICTS.	RURAL DISTRICTS.	WHOLE COUNTY.
Diarrhœa, all forms	10	8	18
Enteritis (not tuberculous)	19	8	27
Gastritis and Gastro-intestinal Catarrh ..	8	4	12
Atrophy, Debility, Marasmus	46	46	92
Convulsions	29	29	58
Total	112	95	207

(2) Infantile deaths, a considerable portion of which were due to improper clothing, exposure to cold, exposure to infection, and general want of attention to the laws of health :—

	URBAN DISTRICTS.	RURAL DISTRICTS.	WHOLE COUNTY.
Infectious Diseases	27	25	52
Bronchitis	19	24	43
Pneumonia	40	35	75
Total	86	84	170

II. (URBAN).

CAUSES OF DEATHS IN AGE PERIODS DURING YEAR 1906, IN THE URBAN DISTRICTS OF SHROPSHIRE.

CAUSE OF DEATH.	Total Deaths in Urban Districts in Age Periods.							Causes of Death in the Different Urban Districts.													
	All Ages.	Under 1.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Bishop's Castle.	Bridgnorth.	Church Stretton	Dawley	Ellesmere.	Ludlow	Newport	Oakengates.	Oswestry	Shrewsbury.	Wellington.	Wem.	Wenlock	Whitchurch.
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	8	2	5	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	7	..
Scarlet Fever	11	..	7	4	..	..	..	..	..	..	..	..	..	..	6	..	..	1	..	3	1
Whooping Cough	56	24	29	3	..	..	..	..	1	1	6	2	..	..	6	4	21	..	..	15	..
Diphtheria and Membranous Croup ..	12	1	5	5	1	..	..	..	1	..	1	..	2	..	2	1	5	..	..	..	..
Croup	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	6	..	1	..	2	3	..	..	2	..	..	..	..	..	1	1	2	..	..	..	..
Continued Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza	47	5	1	1	4	16	20	1	..	..	..	..	1	1	8	3	19	1	3	9	1
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa	39	30	..	..	..	1	8	..	1	..	4	..	..	3	1	1	14	5	..	8	2
Enteritis	12	4	2	1	1	2	2	..	2	..	..	..	1	1	5	1	2	..	..	..	..
Puerperal Fever	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Erysipelas	2	..	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	..	..	1	..
Other Septic Diseases	20	2	1	1	3	8	5	..	2	..	2	..	..	1	..	..	7	3	1	3	1
Phthisis	131	2	1	5	26	93	4	4	9	..	5	2	8	4	8	21	32	6	1	22	9
Other Tubercular Diseases	51	13	13	11	4	9	1	..	1	..	2	1	4	3	2	4	11	6	1	14	2
Cancer—Malignant Disease	117	..	..	..	..	63	54	..	11	..	9	1	11	2	9	12	31	6	2	12	11
Bronchitis	109	19	10	..	..	23	57	2	5	..	14	2	12	5	7	4	29	10	2	13	4
Pneumonia	115	39	20	4	5	32	15	..	4	..	23	1	5	2	16	9	27	5	3	17	3
Pleurisy	4	..	..	..	..	3	1	..	..	..	1	..	..	..	1	..	1	..	..	1	..
Other Diseases of Respiratory Organs ..	7	1	..	..	..	2	4	1	..	1	..	..	..	1	1	..	3	..	..	..	..
Alcoholism—Cirrhosis of Liver	28	..	..	..	..	24	4	1	1	..	1	..	3	2	2	3	7	2	..	3	3
Venereal Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Premature Birth	47	47	..	..	..	..	..	1	2	..	4	..	8	1	4	4	5	3	1	8	6
Diseases and Accidents of Parturition .	4	..	..	..	..	4	..	..	..	1	..	..	..	..	..	..	2	..	..	1	..
Heart Diseases	188	1	..	9	3	69	106	3	12	1	11	2	10	8	11	17	49	12	1	38	13
Accidents	48	4	10	8	3	19	4	3	3	..	1	..	2	2	6	4	12	3	..	8	4
Suicides	13	..	..	..	..	10	3	1	1	1	1	..	..	..	1	1	2	2	..	3	..
All other Causes	658	107	27	12	9	177	326	11	35	4	37	21	47	25	90	66	152	49	19	74	28
Totals	1735	301	133	65	61	559	616	28	94	9	123	32	114	61	187	157	433	115	34	200	88

II. (RURAL).

CAUSES OF DEATHS IN AGE PERIODS DURING YEAR 1906, IN THE RURAL DISTRICTS OF SHROPSHIRE.

CAUSE OF DEATH.	TOTAL DEATHS IN RURAL DISTRICTS IN AGE PERIODS.							CAUSES OF DEATH IN THE DIFFERENT RURAL DISTRICTS.																
	All Ages.	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Atcham.	Bridgnorth.	Burford.	Chirbury	Church Stretton	Cleobury Mortimer.	Clun.	Drayton	Ellesmere.	Ludlow.	Newport	Oswestry	Shifnal.	Teme.	Wellington.	Wem.	Whitchurch.
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	7	2	4	1	..	..	..	..	1	..	..	..	3	2	..	..	..	..	1	..	..	..	..	..
Scarlet Fever	3	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..
Whooping Cough	34	22	10	..	1	1	..	4	4	..	..	4	1	2	..	6	..	1	1	2	..	7	1	1
Diphtheria and Membranous Croup	15	1	6	5	..	2	1	2	1	..	1	..	1	1	..	3	2	..	1	..	..	2	..	1
Croup	3	2	1	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	3	..	..	2	1	..	..	..	..	..	..	1	..	1	1	..	..	..	..	..	..	..	..	..
Continued Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza	52	3	3	1	2	16	27	11	..	1	..	4	2	..	2	2	7	3	8	4	..	3	4	1
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa	21	17	1	..	..	..	3	5	..	..	..	..	1	1	7	..	..	2	2	..	..	2	1	..
Enteritis	12	2	3	..	..	1	6	2	3	1	..	..	1	..	2	..	..	2	..	..	..	..	1	..
Puerperal Fever	2	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Erysipelas	4	1	..	..	..	3	..	1	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..
Other Septic Diseases	10	..	..	1	1	7	1	5	1	..	..	..	..	1	..	..	..	2	1	..	..	..	..	..
Phthisis	122	..	..	3	29	81	9	22	9	1	5	2	3	7	12	16	5	6	7	9	3	11	3	1
Other Tubercular Diseases	37	5	8	4	4	14	2	5	..	..	..	..	2	1	4	3	..	4	9	5	..	2	2	..
Cancer—Malignant Disease	125	..	..	..	..	65	60	18	8	..	3	3	3	9	9	11	5	6	23	10	2	7	7	1
Bronchitis	136	24	6	1	..	18	87	26	14	..	4	7	6	11	12	5	6	6	11	5	1	7	11	4
Pneumonia	123	35	18	5	4	30	31	19	6	..	1	4	8	4	11	7	11	7	9	6	1	21	7	1
Pleurisy	4	..	..	..	..	..	4	3	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Other Diseases of Respiratory Organs	11	..	..	..	1	5	5	..	..	1	2	..	1	1	2	..	..	..	1	2	..	..	..	..
Alcoholism. Cirrhosis of Liver	14	..	..	..	..	11	3	3	..	..	..	..	1	1	2	..	2	..	2	..	..	..	2	..
Venereal Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Premature Birth	54	54	..	..	..	..	..	6	2	..	1	7	5	3	2	2	7	1	5	5	2	4	2	..
Diseases and Accidents of Parturition	10	..	..	..	3	7	..	2	1	..	1	..	1	..	1	..	..	..	..	1	..	1	2	..
Heart Diseases	228	2	1	5	4	92	124	30	13	..	7	7	18	16	26	9	19	5	23	11	2	25	12	3
Accidents	62	2	3	10	6	31	10	11	6	..	..	1	..	2	6	5	5	4	10	7	..	4	1	..
Suicides	17	..	..	..	4	12	1	2	1	..	..	1	1	2	..	..	2	..	1	2	1	3	..	1
All other Causes	735	106	20	17	23	142	427	90	52	11	12	32	29	36	64	38	48	37	101	50	12	60	54	9
TOTALS	1844	278	86	56	84	539	801	268	123	15	37	73	87	101	163	108	120	90	217	120	24	160	110	24

(3) Infantile deaths due to a great extent to a want of care on the part of the mother for her own health :—

	URBAN DISTRICTS.	RURAL DISTRICTS.	WHOLE COUNTY.
Premature Births	50	54	104

(4) Infantile deaths due to tuberculous infection :—

	URBAN DISTRICTS.	RURAL DISTRICTS.	WHOLE COUNTY.
	15	5	20

The deaths from these preventable causes form 86 per cent. of the whole number. It is evident therefore that although the death-rate in this county is not excessive there is much scope for good work.

A National Conference on infantile mortality was held in June, 1906, at which the following resolutions were passed :—

1.—That the Education Department be urged to add instruction in elementary hygiene with reference to the dietary and rearing of infants to their present scheme for systematically training girls in the senior classes in the practice and principles of personal hygiene and the elements of dietary.

2.—That, in the opinion of this conference, immediate legislation is required enabling Sanitary Authorities to establish or support depots for the supply of pure, or modified, or sterilised milk, and to defray any cost out of the monies available for public health purposes.

3.—That, in view of the information submitted, the conference is of opinion that all still births should be notified within 48 hours to the medical officer of health of the district in which they occur, and that no burial should take place without a medical certificate.

4.—That notification of all births be given within 48 hours to the medical officer of health of the district in which they occur.

5.—That, in the opinion of this conference, the question of the insurance of infant lives under twelve months is one demanding serious consideration, and, with a view to receiving reliable information, the Government should be asked to appoint a Departmental Committee of Inquiry on the whole question.

6.—(*a*) That the period of one month's abstention from factory work away from home now imposed on mothers be extended to at least three months, and that, on their return to work, evidence must be produced satisfactory to the local authority that proper provision has been made for the care of the child.

(*b*) That no employer of labour shall permit a woman advanced in pregnancy to engage in factory labour unless her ability therefor has been certified to the satisfaction of the local authority.

7.—(*a*) That, having regard to the ascertained fact that in centres of industries where women are largely employed away from their homes, an excessive number of deaths of infants takes place, and that this is contributed to by the improper conditions existing at the houses in which infants are placed out to nurse, it is necessary that the persons by whom and the places into which infants are received should be under supervision by the local sanitary authority.

(*b*) That the Infant Life Protection Act be amended to remedy abuses which are not at present provided against.

8.—That all preparations offered or sold as food for infants should be certified by a Government analyst as non-injurious, and that each packet should contain its analysis.

9.—That the Dairies, Milkshops, and Cowsheds Order is defective, and that any amendment should extend the definition of disease as applied to animals, and should make the provision of regulations by local authorities compulsory. That the scope of the regulations should be extended to cover dirty milk, and should enable local authorities to prohibit the sale of any milk which fails to comply with the conditions of purity agreed upon.

10.—That in the opinion of this conference the appointment of qualified women specially trained in the hygiene of infancy is necessary as an adjunct to public health work.

11.—That in the opinion of this conference the Midwives Act, 1902, should be extended to Scotland and Ireland.

The sanitary committee considered these resolutions and reported :—

> That they specially approved the resolutions numbered 1, 3, 4, 5, and 9; generally endorsed resolutions numbered 6, 7, and 10; but did not acquiesce in resolutions numbered 2 and 8.

For effective action to be taken to prevent excessive infantile mortality, it is essential

(1) That the medical officer of health should have early notification of all births. The necessity for early notification is evident from the fact that nearly one quarter of the deaths under one year in 1906 occurred in the first week.

(2) That the sanitary authority should make arrangements for the homes to be visited as soon as possible after the receipt of notifications of births. The visits should be principally for the purpose of instructing the mother, and may be made either by an official of the sanitary authority or by a properly trained health visitor employed by a voluntary society and under the general supervision of the medical officer of health. In Shrewsbury a Health Society has been formed for this purpose, and is working satisfactorily.

Until the various sanitary authorities undertake this duty, other more imperfect methods have to be made use of. The County Council Health Lecturer makes the feeding and care of infants the principal subject of her lectures, but it is quite evident that the effective time to teach a mother is when she is nursing a child, and the proper place is in her own home, for only there can the various defects in her management be pointed out. An attempt is also being made to forward this work through the registered midwives by means of printed instructions, which they are asked to leave with and explain to the mothers.

As a basis for this instruction however, it is essential that the broad principles governing the feeding and management of infants should be taught to the older girls in the elementary schools. It is probably not desirable that the teaching in schools should enter into details, but it is certainly essential to success, that a condition of mind should be produced, which will ensure, that the teaching in after years by health visitors or other persons appointed for this purpose, will be readily understood and appreciated.

One of the greatest difficulties at the present time, that health visitors have to face, is not simply ignorance on the part of the mother, but misplaced confidence in her own methods and unwillingness to learn. By judicious teaching in schools this obstacle might be completely removed.

I take this opportunity of quoting a paragraph from the Registrar General's Report for 1905 dealing with the effect of high birth-rates and high infantile mortalities as compared with moderate birth-rates and low mortalities :—

> "It is true that the figures worked out for England show that only in a few extreme "cases is the numerical advantage of a high over a low birth-rate completely neutralised "by excessive mortality during the first five years of life; *but excessive mortality is "almost inevitably associated with deteriorated health of the survivors*, and similar influences "may reasonably be supposed to affect children beyond the age to which the investigation "could conveniently be carried."

In the presence of a low and decreasing birth-rate, the importance of reducing the infantile mortality by every possible means is evident, and this importance is greatly magnified by the fact, of which there is considerable proof, that the measures taken to reduce the mortality, also improve the physique of the survivors.

CHIEF CAUSES OF DEATH.

Table 7.

	Urban Districts. 1906		Rural Districts. 1906		Whole County. 1906		Whole County. 1905		England and Wales. 1905
	Deaths.	Death-rates.	Deaths	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Death-rates.
Seven chief zymotic diseases ..	132	1.21	83	.62	215	.88	155	.64	1.52
Phthisis	131	1.20	122	.91	253	1.04	232	.96	1.14
Other forms of tuberculosis ..	51	.47	37	.27	88	.36	78	.32	.49
Bronchitis	109	1.00	136	1.02	245	1.01	274	1.13	1.13
Pneumonia	115	1.05	123	.92	238	.98	261	1.08	1.29
Heart Disease	188	1.72	228	1.71	416	1.72	466	1.92	1.41
Cancer	117	1.07	125	.94	242	1.00	250	1.03	.88

The striking points with regard to this table are the low rates in the rural districts from zymotic disease, tuberculosis (all forms), and pneumonia, compared with those of the urban districts. From heart disease and bronchitis the rates in the two sets of districts are practically the same, but like cancer these rates are influenced very much by the large proportions of old persons in the rural districts. The low rates for the whole county from the zymotic diseases and tuberculosis for 1905 were not maintained during 1906.

AVERAGE ANNUAL DEATH-RATES PER MILLION, FOR CERTAIN DISEASES, IN GROUPS OF YEARS FROM 1856—1905.

REGISTRATION COUNTY OF SHROPSHIRE.

Table 8.

PERIODS.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhus Fever.	Enteric Fever.	Continued Fever.	Cancer.	Phthisis.
1856—1860	129	206	546	245	339	*	617	*	—	2306
1861—1870	112	277	548	232	298	*	644	*	—	2169
1871—1880	78	186	518	190	271	33	246	75	—	1640
1881—1885	10	147	323	207	244	8	168	17	626	1377
1886—1890	1	213	79	125	319	5	127	5	782	1359
1891—1895	3	163	132	209	240	1	92	0·7	847	1144
1896—1900	0·7	161	65	210	234	0	82	1	953	1028
1901—1905	2	171	55	119	236	0	31	0	1025	960

* In these years Typhus, Enteric and Continued Fevers were not differentiated.

This Table, the significance of which I pointed out in previous reports, has been brought up to date.

The striking points are the increase of the death-rate from cancer and the decrease of that from phthisis; the very extraordinary decrease of the death-rates from scarlet fever and enteric fever; the very slight decrease in the rates from whooping cough and measles, and the slight decrease in the rate from diphtheria, compared with that from scarlet fever and enteric fever. The result is a complete reversal of the order of the diseases viewed from the number of deaths they cause. Whereas in the early years scarlet fever and enteric fever were the most fatal of the infectious diseases, now the most fatal of these diseases are whooping cough, measles, and diphtheria. The prevention of these diseases and particularly the lessening of the case mortality is one of the most promising fields of action for the saving of life, and they should undoubtedly receive more careful attention in the future.

INFECTIOUS DISEASES.

The death-rates from the seven common infectious diseases was ·88, compared with ·64 in 1905, and 1·0 in 1904.

The number of cases of infectious disease in the various districts are given in Table III (urban and rural).

Table 9.

Analysis of Deaths and Death-Rates from the Common Infectious Diseases.

	Seven chief zymotic Diseases.		Small-pox.		Scarlet Fever.		Typhoid Fever.		Diphtheria.		Measles.		Whooping Cough.		Diarrh	
	Deaths	Death-rates.	Deaths	Death-rates.	Deaths	Death-rates	Deaths	Death-rates.	Deaths	Death-rates.	Deaths	Death-rates.	Deaths	Death-rates.	Deaths	D
Urban Districts	132	1·21	0	·00	11	·10	6	·05	12	·11	8	·07	56	·51	39	
Rural Districts	83	·62	0	·00	3	·02	3	·02	15	·11	7	·05	34	·25	21	
Whole County	215	·88	0	·00	14	·06	9	·04	27	·11	15	·06	90	·37	60	
England and Wales ..		1·73		·00		·10		·09		·17		·27		·23		
England and Wales less the 218 towns		1·18		·00		·08		·09		·16		·14		·19		
NOTIFICATIONS			Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.						
Urban Districts			0		321	3·4	25	24·0	122	9·8						
Rural Districts			0		331	·9	18	16·6	119	12·6						
Whole County			0		652	2·1	43	20·9	241	11·2						

This Table shows that the zymotic rate for the county compares very favourably with that of England and Wales, and with England and Wales less the 218 towns. The rate for the urban districts was approximately double that for the rural districts. The other rates will be dealt with under the headings of the various districts.

Smallpox.—There was no case of smallpox notified during the year in the county.

Scarlet Fever.—There were 14 deaths from scarlet fever, compared with 11 in 1905, and 8 in 1904. The number of cases notified was 652, compared with 648 in the previous year. A remarkable point is the extraordinary low case fatality (·9 per cent.) in the rural districts. It illustrates the mildness of the disease at the present time, and it strengthens the view that this change of type has not been produced in any way by hospital isolation. The districts principally affected were Oakengates (121 cases), Wellington (61), Wenlock (59), amongst the urban districts and Newport (81), and Atcham (81) amongst the rural districts. The cases in Newport Rural

III. (URBAN)
CASES OF INFECTIOUS DISEASE NOTIFIED IN 1906 IN URBAN DISTRICTS.

Notifiable Diseases.	Cases in Urban Districts in Age Periods.							Total Cases Notified in each Locality.													
	All Ages.	Age Periods.						1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Bishop's Castle.	Bridgnorth.	Church Stretton.	Dawley.	Ellesmere.	Ludlow.	Newport.	Oakengates.	Oswestry.	Shrewsbury.	Wellington.	Wem.	Wenlock.	Whitchurch
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	122	..	27	57	15	21	..	1	7	1	3	..	2	..	22	2	47	7	3	1	26
Membranous Croup ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	40	..	2	2	5	19	5	2	..	..	1	..	7	..	6	1	10	5	..	7	1
Scarlet Fever	321	6	94	181	24	14	..	1	3	..	10	2	2	6	121	6	33	61	..	59	17
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.
Enteric Fever	25	..	1	2	9	12	..	..	3	..	1	1	1	..	5	3	10	..	..	1	..
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	4	..	..	..	1	3	..	..	1	..	..	..	..	..	..	..	1	1	.	1	..
TOTAL*	512	6	124	242	54	69	5	4	14	1	15	3	12	6	154	12	101	74	3	69	44
Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

* The cases that occurred in Ludlow are not classified in Age Periods.

III. (RURAL).

CASES OF INFECTIOUS DISEASE NOTIFIED IN 1906 IN RURAL DISTRICTS.

Notifiable Diseases.	Cases in Rural Districts in Age Periods.							Total Cases Notified in each District.																
	Age Periods.							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	At all Ages.	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Atcham.	Bridgnorth.	Burford.	Chirbury.	Church Stretton.	Cleobury Mortimer.	Clun.	Drayton.	Ellesmere.	Ludlow.	Newport.	Oswestry.	Shifnal.	Teme.	Wellington.	Wem.	Whitchurch.
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	119	1	23	54	8	14	1	19	4	1	1	1	7	2	7	18	15	14	10	1	..	5	3	11
Membranous Croup ..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Erysipelas	68	2	3	1	6	47	8	6	..	..	2	2	4	4	6	1	7	6	5	1	1	19	4	..
Scarlet Fever	331	3	80	209	17	18	..	81	21	8	6	6	5	11	34	4	15	81	8	27	2	14	4	4
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	18	..	1	3	6	6	1	3	..	..	..	1	..	4	3	1	..	1	..	2	..	2	1	..
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	6	..	..	..	3	3	..	3	..	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..
Total*	543	6	108	267	40	88	10	112	25	9	9	10	17	21	50	24	39	102	24	31	3	40	12	15
Measles	23	2	5	14	1	1	..	..	..	..	20	..	..	..	..	..	..	..	..	..	..	3	..	..
Rötheln	2	..	..	..	..	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-Pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

* The cases that occurred in Ellesmere are not classified in Age Periods.

District were mostly in that part contiguous to Oakengates, and the deaths in these two districts accounted for nine out of the total of fourteen. Dr. Rose attributes the spread to school attendance, to defective housing preventing proper isolation, and to imperfect disinfection. due to the want of a steam disinfector.

In many of the districts the spread was attributed to mild unrecognised cases, infection frequently occurring at school. Sixteen schools were closed wholly or partly on account of outbreaks of this disease.

In Shrewsbury an outbreak of ten cases was, with some confidence, attributed to infection from milk.

None of the cases in the County appear to have been removed to an isolation hospital except for four cases in the Borough of Shrewsbury, seventeen in Drayton Rural District, three in Newport Urban District, and a small number (exact number not stated) in the Borough of Bridgnorth. The only district therefore in which isolation was practised to any considerable extent was Drayton, and Dr. Macqueen in his report says "Most of the cases of scarlet fever occurred in Market Drayton and Little Drayton, and by prompt removal of the first cases notified to the isolation hospital, a serious epidemic was avoided."

MEASLES.—There were 15 deaths from measles compared with 32 in 1905, and 54 in 1904. The district principally affected was the Borough of Wenlock, in which seven of the deaths occurred. I have received notice of closure of 17 schools wholly or partly on account of outbreaks of this disease. On the question of closure of schools I will quote from my last annual report :—

(1) That closure to be of any use must take place after the first case, and be for a period of 7—10 days, sufficiently long to cover the time of onset of illness of the first crop of cases.

(2) That for this purpose immediate and prompt notification of all cases by the school authorities is necessary.

(3) That class closure may sometimes be practised with advantage according to local circumstances.

(4) That in order to be able to ascertain whether a class is susceptible or not, or whether individual children are susceptible or not, a measles history of each child should be kept.

It is possible that, even after careful trial of this method of closure, the results might not be very satisfactory, but it is quite certain that the present method of closure of schools has no influence whatever on the spread of the disease. Although the closure is supposed to be applied as a sanitary measure it is really for the convenience of education.

The carrying out of these suggestions has perhaps been somewhat interfered with by the fact that universal medical inspection of school children is likely to be soon made compulsory, and then this will become a part of a much larger question.

Measures that have been taken to prevent the spread of measles in the past have not been very successful, and the success of even improved methods may not be very conspicuous, particularly in towns. On the other hand there can be no doubt that by energetic steps taken during an epidemic the mortality may be greatly lessened, as most of the deaths from measles are due to carelessness and ignorance. If during an epidemic, nurses were employed to visit the cases daily and see that they were properly cared for, and particularly that they were not allowed to be exposed, a very large saving of life would result. As so far we have failed to limit the spread of measles to any considerable extent, and the number of deaths caused by this disease as shown by Table 8 is still very large, it is very desirable that every available means should be taken to lessen the case mortality. As an aid to this work it is of the utmost importance that the clauses of the Public Health Act, 1875, and the Infectious Disease (Prevention) Act, 1890, relating to infectious diseases should be made to apply to measles, without declaring it a notifiable disease.

It does not admit of doubt that the lives of a considerable number of children are lost from measles and whooping cough by their attendance at school at too early an age. For every year of life that an attack of these diseases may be postponed, the danger is greatly diminished, and by raising the age of school attendance, the average age at which the children would suffer would also be raised.

Whooping Cough.—There were 90 deaths from whooping cough compared with 24 in 1905, and 89 in 1904. The death-rate in the urban district was double that in the rural districts. This high mortality was principally owing to the large number of deaths in Shrewsbury, Wenlock, Dawley and Oakengates. Of the rural districts, Ellesmere, Church Stretton, and Wellington suffered the most severely. No less than 46 of the 90 deaths were of children under one year of age, and 39 were between one and five years.

The disease was prevalent throughout the greater part of the county, particularly during the first half of the year, and in consequence no less than 34 schools were closed.

My remarks on page 17 with regard to the difficulty of preventing the spread of measles are applicable perhaps even to a greater extent with regard to whooping cough. As reference to Table 8 shows, whooping cough now causes far more deaths than any other of the common infectious diseases. From the nature of the disease, particularly its prolonged infective period, it is under the control of sanitary authorities to a smaller extent even than measles, yet there can be no doubt that by similar measures to those which are suggested for measles, the case mortality could be greatly reduced and a large number of lives saved.

Diphtheria.—There were 241 cases and 27 deaths from diphtheria, compared with 206 cases and 36 deaths in 1905, and 255 cases and 39 deaths 1904.

The districts principally affected were Whitchurch Urban (26 cases), Oakengates (22), Shrewsbury (47), and amongst the rural districts Whitchurch (11), Ellesmere (18), Newport (14), and Atcham (19).

The case mortality, *i.e.*, the number of deaths for every hundred cases notified was lower than in the previous year, and was again distinctly higher in the rural than in the urban districts. Whether this higher rate in rural districts is due to the greater delay in the use of antitoxin or to the specially fatal character of many of the isolated outbreaks in country districts is a matter of some interest.

An outbreak of 12 cases at Culmington, in the Ludlow Rural District, was not attributed to any definite cause, but no cases were notified after the school was closed, and the medical officer of health makes the suggestion that when there is diphtheria in a school all children with sore throats should be bacteriologically examined.

An inspection of the school children after the first case or two with bacteriological examination of suspected cases would in all probability have controlled the outbreak at an early stage. When the outbreak was brought under my notice I arranged to visit the school and make the necessary examinations, but in the meantime the school was closed.

In Shrewsbury diphtheria was more prevalent than in any year since 1898. Dr. Gepp drew up a circular for the guidance of school teachers.

The outbreak in Whitchurch Urban District was the subject of a special report in which it was clearly shown that the spread was due to mild undiscovered cases, or to "carrier" cases attending school. Exclusion of individual scholars failed to check the outbreak, so the schools were closed, and they remained closed from November 23rd, 1906, to February 4th, 1907. In commenting on this outbreak Dr. Gepp says "If a regular medical examination of the school children, including a daily search for suspects, had been possible, in my opinion the schools might have remained open during the ten weeks or more in which they were closed, and possibly the outbreak would have been controlled earlier."

In previous reports I have entered into this question of school closure on account of diphtheria, and have shown that with efficient inspection, schools should not be closed for this disease. One may take it as a fact, that when diphtheria is spreading in a school there are one or more infective children attending. These children may remain infective for long periods and it should be one's object to discover them. If the school is closed it becomes practically impossible to find out the source of infection and so render it harmless, and consequently when the school is re-opened the infection is frequently re-introduced. If however, from inability to carry out the method suggested, schools are closed to prevent the spread of diphtheria, special precautions should be taken when they are re-opened. None of the known infected children should be allowed to return to school until their throats have been examined bacteriologically and declared free from infection. The school children should be examined on the day of opening and swabs should be taken from any children to whom any suspicion is attached.

If the following measures are taken there should, in the vast majority of instances, be no difficulty in controlling an outbreak of diphtheria without school closure :—

(1) Whenever two or more cases of diphtheria occur in a school within a limited period, to cause an inspection to be made and swabs taken from the throats of all children who appear likely to have been the cause of the outbreak. In some instances it may be necessary to examine all the children in the infected class, but in most instances it will suffice to examine (*a*) all children who have been recently absent from unexplained causes or minor ailments, (*b*) children with discharge from the nose or ears, or suffering from other conditions not infrequently left by diphtheria, (*c*) children who habitually breathe through their mouths. (*d*) children who are known to have been in contact with diphtheria. It is necessary also to inquire into the absentees.

(2) To insist as a matter of routine that a person cannot be declared free from infection until the throat has been found free from diphtheria bacilli.

(3) Whenever satisfactory isolation cannot be provided, to protect the rest of the family by small injections of antitoxin.

In the outbreak at Whitchurch instructions were issued by the Local Education Authority that children who had suffered from diphtheria were not to be admitted to school until their throats had been examined bacteriologically and declared free from infection. This instruction has since been made general, and it should prove of the greatest use in preventing and controlling outbreaks of diphtheria.

In previous years I have called attention to the somewhat excessive case mortality, and suggested that it might be due to some extent to the fact that antitoxin is not used sufficiently universally and promptly. The figures show that the case mortality was considerably lower for 1906 :—

MORTALITY PER HUNDRED CASES.

1900	1901	1902	1903	1904	1905	1906
21	16·5	12·3	17·6	15·3	17·4	11·2

The lower mortality for 1906 was probably due mostly to a lowered severity of the disease, but it may have been due to some extent to a more prompt and general use of antitoxin.

Typhoid Fever.—There were 43 cases and 9 deaths, compared with 49 cases and 5 deaths in 1905, and 50 cases and 9 deaths in 1904. None of the districts were really seriously affected, but the largest number of cases occurred in Shrewsbury (10), Oakengates (5), Clun (4), Bridgnorth Urban (3), Oswestry Urban (3), and Drayton Rural (3). The only districts in which more than one death occurred were the Boroughs of Shrewsbury and Bridgnorth, in each of which there were two.

The outbreaks consisted of isolated cases and in almost all the origin was obscure.

Diarrhœa.—There were 60 deaths from diarrhœa compared with 48 in 1905. The death-rate was ·24 compared with ·87 for England and Wales and ·52 for England and Wales less 218 towns.

	Urban Districts.		Rural Districts.	
	Under 1 year of age.	*Over 1 year of age.*	*Under 1 year of age.*	*Over one year of age.*
Diarrhœa	30	9	17	4
Enteritis	4	8	2	10

The incidence of infantile diarrhœa corresponds fairly closely with the temperature of the soil, and there was a considerable increase compared with the previous year throughout the country, no doubt due to the excessive heat of the late summer and autumn. It is satisfactory to observe that the total number of deaths under one year from diarrhœa and enteritis, which is perhaps the most correct indication of the amount of infantile diarrhœa, was only 53 compared with 58 in 1905. The measures which will reduce the amount of infantile diarrhœa are the provision of a clean and fresh milk supply, the teaching of correct methods of infant feeding, particularly the necessity for breast feeding, and cleanliness both household and municipal.

Puerperal Fever.—Ten cases were notified and 3 deaths, compared with 17 cases and 6 deaths in 1905, and 7 cases and 2 deaths in 1904.

An arrangement exists by which the District Medical Officers notify me promptly of any cases that come to their knowledge.

No satisfactory understanding exists as to what is really puerperal fever, and each medical practitioner has his own interpretation. It is perfectly understood that "puerperal fever" is not a specific fever, but that the term includes a variety of infections, some of which may arise without the communication of infection from one patient to another. On the other hand, the term is associated in the public mind only with the more dangerous and extremely infectious forms of the disease. It seems, therefore, very desirable not only that the condition should be defined, but also that another name should be substituted.

To quote from my report for 1905 :—"In my last Annual Report I showed the necessity for a clear definition of puerperal fever, and advised that the Local Government Board should be asked to define what is meant by puerperal fever, or better still to withdraw the term and substitute another which shall include those puerperal infectious conditions that are liable to spread from one lying-in patient to another and to which no pre-conceived notions would be attached. In answer to a communication from the County Council on this subject the Local Government Board replied, saying that the fever known by the name of "puerperal" being a statutory term under section 6 of the Infectious Disease (Notification) Act, 1889, the Board had no authority to define the term, or to withdraw it and substitute another. It appeared to the Board however that the term might be regarded as a general one, including the several affections referred to in the opinion of the Royal College of Physicians.

"The North-Western Branch of the Society of Medical Officers of Health seeing the necessity for a satisfactory working definition of puerperal fever if the Midwives Act is to be properly administered, have forwarded to the Local Government Board the following definition as one which might with great advantage be adopted :—

"For the purpose of the Notification Acts, 1889 and 1899, the term 'puerperal fever' shall include all cases in which within seven days after the birth of the child, alive or stillborn, the mother shall have a rise of temperature exceeding 100.4°F. with quick pulse, maintained for a period exceeding 24 hours, without any obvious cause other than the puerperal state.

"It shall also include all cases in which, within seven days after the birth of a child, there has been the occurrence of rigor (with attendant illness) without any obvious cause other than the puerperal state."

I would suggest that this definition be forwarded to all the medical practitioners in the county.

TUBERCULOSIS.

Table 10.

	Death-rates from Phthisis.							Death-rates from other forms of Tuberculosis.						
	5 years, 1896—1900	1901	1902	1903	1904	1905	1906	5 years, 1896—1900	1901	1902	1903	1904	1905	1906
n Districts	—	1.28	1.05	1.18	1.4	1.0	1.20	—	.46	.43	.54	.41	.37	.47
l Districts .	—	.75	.70	.86	.87	.92	.91	—	.36	.21	.32	.39	.28	.27
le County ..	—	.98	.85	1.0	1.1	.96	1.04	—	.40	.31	.41	.40	.32	.36
and & Wales	1.32	1.26	1.23	1.20	1.2	1.14	*	.58	.59	.50	.54	.54	.49	*

* Not yet available.

The very considerable decrease in the deaths from tuberculosis in 1905 has not been maintained.

The districts with the heaviest rates from phthisis were :—

	Deaths.	Death-rates.		Deaths.	Death-rates.
Bishop's Castle ..	4	3·07	Whitchurch Urban .	9	1·69
Bridgnorth Urban ..	9	1·48	Chirbury	5	1·41
Oswestry Urban ..	21	2·11	Ellesmere Rural ..	16	2·02
Wenlock	22	1·38	Teme	3	1·62

Of these districts Bishop's Castle, Wenlock, Chirbury and Teme had high phthisis rates in 1905.

Several of these districts are small, and in none of them can one year's rates be considered very conclusive. The following table dealing with seven years is a much safer guide, and for the sake of comparison, the amount the rates have exceeded or fallen short of the average rates for the combined urban and combined rural districts are given.

Table 11.

AVERAGE PHTHISIS DEATH-RATE FOR SEVEN YEARS, 1900—1906.

URBAN DISTRICTS.	Death-rates for years 1900—1906	Percentage above or below the average for Urban Districts.	RURAL DISTRICTS.	Death-rates for years 1900—1906	Percentage abov or below the average for Rural Districts.
Bishop's Castle ..	1.69	+ 45.7	Atcham	1.01	+ 18.8
Bridgnorth	1.34	+ 15.5	Bridgnorth ..	.63	— 25.9
Church Stretton ..	.50	— 56.9	Burford	1.29	+ 51.7
Dawley	.88	— 24.1	Chirbury	1.17	+ 37.6
Ellesmere	.94	— 18.9	Church Stretton ..	.87	+ 2.3
Ludlow	1.14	— 1.7	Cleobury Mortimer .	.40	— 52.9
Newport	1.42	+ 22.4	Clun..	.84	— 1.2
Oakengates	.66	— 43.1	Drayton	.74	— 12.9
Oswestry	1.16	0.0	Ellesmere	1.08	+ 27.0
Shrewsbury	1.35	+ 16.3	Ludlow	.53	— 37.6
Wellington	1.07	— 7.7	Newport	.87	+ 2.3
Wem	.71	— 38.8	Oswestry	.83	— 2.3
Wenlock	1.45	+ 25.0	Shifnal	.90	+ 5.9
Whitchurch	.92	— 20.7	Teme	1.39	+ 63.5
			Wellington ..	.96	+ 12.9
			Wem	.88	+ 3.5
			Whitchurch ..	.44	— 48.2

The highest rates amongst the rural districts were Teme 63·5 per cent. in excess, Burford 51·7 per cent., Chirbury 37·6 per cent., and Wellington 12·9 per cent. Burford and Teme are very small districts, so that the high mortality from phthisis may possibly be accidental, but on the other hand there may be some cause inherent in the districts to which the high death-rate may be attributed, and a further inquiry is certainly desirable. The high death-rate in Chirbury is attributed by Dr. Woods to working in the lead mines. It should not be difficult to satisfactorily investigate this matter.

Amongst the urban districts the highest rates were Bishop's Castle 45·7 per cent. in excess, Wenlock 25 per cent., Newport 22·4 per cent., Shrewsbury 16·3 per cent., and Bridgnorth 15·5 per cent. The rates for none of these districts can be considered satisfactory, and they may probably be taken as an indication that there is much worn out and insanitary property, defective particularly in air space and ventilation. It is more especially in these towns that the crusade against phthisis should be proceeded with the utmost vigour.

I have recently presented a report on phthisis in this county, so that it will not be necessary again to enter into details. The following is a summary of the administrative measures suggested in the report. :—

(1) Notification, with subsequent action: (*a*) investigation, (*b*) disinfection, (*c*) education, (*d*) supervision.

(2) Education: (*a*) by sanitary authorities, (*b*) by county council, (*c*) by education authorities, (*d*) by institutional authorities.

(3) Isolation of advanced and dangerously and infective cases.

(4) Sanatorium treatment for curative and educational purposes.

(5) The formation of tuberculosis dispensaries or other means for encouraging early diagnosis of the disease, and material help where necessary.

First and foremost in the fight against phthisis must be placed notification.

Recently the Shropshire and Mid-Wales Branch of the British Medical Association passed the following resolution, which has been forwarded to all the medical practitioners and sanitary authorities in the county :—

"That in the opinion of the Shropshire and Mid-Wales Branch of the British Medical Association voluntary notification of phthisis is desirable, and that wherever adopted it should be followed up by efficient preventive measures ; also

"That this resolution be forwarded to the sanitary authorities, county councils, and medical practitioners in the area covered by this branch."

This resolution is of great importance as an indication that the medical profession of the county recognises the necessity for notification, and also as an indication that they are willing, generally speaking, to notify cases whilst still retaining their powers of discretion in any particular case.

Since this resolution was passed voluntary notification has been adopted by the Wem and Wellington Urban District Councils, and by the Shifnal and Wem Rural District Councils. This notification was previously in force in Drayton and Chirbury Rural Districts and the Borough of Bridgnorth, but no indication is given in the annual reports for these districts that any action has been taken. It cannot be too much insisted upon that unless voluntary notification is worked energetically, it becomes useless. The number of notifications received depends to a great extent upon the way in which the sanitary authority carries out the subsequent preventive measures. The measures that should usually be taken may briefly be summarised as follows :—

(1) A preliminary visit should be made by a sanitary official at which—

(*a*) An investigation form should be carefully filled in. This form should give the history of illness of patient, personal history, family history, condition of house with regard to accommodation, structure, and cleanliness, details bearing upon origin of infection, condition under which work is carried on, etc. Much of this information is for the general advancement of knowledge which is absolutely necessary for the application of preventive measures with the greatest efficiency. It will, however, often throw light upon local problems and show influences favouring the spread of phthisis which otherwise would be unsuspected.

(*b*) The patient should be instructed as to how to live so as not to be a danger to the rest of the household and the rest of the community. Simple rules of living, which are important in the prevention of consumption, should be pointed out to the rest of the household. Printed instructions may with advantage be delivered to every house in the sanitary district.

(2) Arrangements should be made for the disinfection of the house or those parts in which the patient has lived. Broadly speaking, the walls, floors, and furniture should be washed with a disinfectant, all washable clothing should be steeped in the disinfectant, and all other clothing, carpets, curtains, bedding, etc., should be disinfected in a steam disinfector. Chloride of lime ($1\frac{1}{2}$ oz. to one gallon of water) is a cheap disinfectant, and has been shown by Prof. Delepine to be very effective.

(3) Periodic visits should be made in order to see that the instructions with regard to the disposal of sputum and cleanliness of the house are carried out, and to discover removals. It should be the aim of the inspector to see that complete washing of the floors and skirtings is carried out every week, and cleansing of the walls with dough every three months.

(4) Disinfection of the house should be carried out after removal or death of the patient.

(5) Visits should be paid to the workshop where the patient is employed to see that there is no spitting on the floor and that the place is clean. Great care must in these cases be taken not to disclose the reason for the visit. Similar visits should be made to other places resorted to by the patient, *e.g.*, public houses.

(6) Great attention should be paid to insanitary conditions of houses, etc., associated with phthisical cases.

(7) Where places, either for the isolation of late cases or the treatment of early cases, are provided, all the necessary particulars should be taken so as to enable one to judge as to the suitability of the case for institutional treatment. It need hardly be pointed out that notification is essential if the best results are to be obtained from the treatment or isolation in institutions. It is quite impossible otherwise to select the cases most fitted for admission.

Dr. Gepp in his report advises his council to consider, before adopting notification, how they are going to arrange for the measures to be efficiently carried out. He points out that it will mean a considerable increase of work for the sanitary inspectors of a responsible character. In his report for Shrewsbury, Dr. Gepp recommends that voluntary notification be adopted, and that an arrangement be made with the Health Society for visiting the cases.

At a recent meeting called by the Shrewsbury Charity Organization Society a resolution was passed recommending the formation of an association for the prevention of consumption and other forms of tuberculosis in the county, and a similar resolution has since been passed by the Shropshire and Mid-Wales Branch of the British Medical Association. It may be presumed that steps will shortly be taken to give effect to these resolutions.

There can be no doubt that such an association would be a very valuable help in many ways to sanitary authorities in the fight against tuberculosis. Perhaps its most important work would be educational—education of the public as to their individual conduct and also so as to form a strong public opinion. An association of this kind would probably be the most suitable body to deal with the sanatorium question. There are many other matters in connection with the prevention of phthisis of a semi-charitable character that can only be satisfactorily dealt with by a voluntary association.

The following quotations from the District Medical Officers' Reports bear upon these questions :—

Ellesmere Urban.—"The absence of any sanatorium for the open air treatment of non-paying patients certainly prevents any attempt to successfully treat phthisical cases."

Ludlow Urban.—"It seems to me to be satisfactorily shown that comparatively cheap and light-built shelters which afford practically "open air" treatment, result in greater benefit to the patients than palatial and costly buildings. These also demonstrate to the patient the value of fresh air and the importance of dealing with the expectoration."

Wenlock (Borough).—“ The usefulness of sanatoria for the treatment of cases in an early stage of the disease is admitted, and if the borough could be provided with a small sanatorium containing from 6 to 10 beds, very valuable assistance would be given. The “ Lady Forester Charity,” which, administered by trustees, has recently provided admirable general hospitals at Wenlock and Broseley, and a convalescent home at Llandudno, for the inhabitants of the borough, is very wealthy, and if the trustees found it possible to provide and maintain a sanatorium for phthisis also, in the borough, it would be of the greatest advantage. The relatively high death-rate from phthisis in the borough would make such action specially advantageous.”

Ellesmere Rural.—“ If phthisis was made a notifiable disease, I think it might impress upon the public the danger this disease is to others, as the long illness that often obtains tends to make people forget how infectious it is. A sanatorium for the treatment of phthsis has I believe been suggested by the County Council. I hope it may soon come.”

It is possible that the advances that have recently been made in measuring the resisting power of individuals, may be of the greatest use in the successful management of sanatoria, and generally in directing into the best channels the action to be taken in preventing this disease. There can be no doubt that of all methods of action for the prevention of infectious disease that is the most valuable which, by modifying the surroundings, increase the power of resistance.

Other forms of Tuberculosis accounted for no less than 88 deaths, 51 being in the urban districts and 37 in the rural districts. These deaths are of special interest because according to the finding of the Royal Commission (see page 43) they are in all probability mostly due to infection from tuberculous milk. The damage cannot however be measured simply by the number of deaths alone, for a large proportion of the lameness and deformity existing, has been caused by tubercle affecting the bones and joints.

CANCER.

Table 12.

DEATH-RATES FROM CANCER IN THE URBAN AND RURAL DISTRICTS FOR 1900, 1901, 1902, 1903, 1904, 1905, and 1906.

RBAN STRICTS.	1900	1901	1902	1903	1904	1905	1906	Average for years 1900—1906
’s Castle .	·6	·0	2·2	2·2	·0	·76	·00	·84
orth ..	·6	1·32	1·1	·72	1·1	1·4	1·81	1·20
Stretton.	·0	·0	·0	·96	·0	2·2	·00	·52
y	·4	·79	1·3	1·0	1·0	·78	1·17	·93
ere ..	·5	2·05	1·5	3·0	·0	1·0	·50	1·24
v	1·5	·44	1·2	·31	1·7	1·2	1·67	1·16
rt ..	2·64	·92	·95	·63	1·9	1·6	·64	1·33
gates ..	·5	1·10	·64	1.2	1·1	·72	·81	·88
try ..	·5	·62	1·4	1·0	·6	·70	1·21	·87
sbury ..	·8	·73	1·07	·89	1·0	1·3	1·05	·99
gton ..	·7	1·25	1·1	1·4	1·2	1·3	·79	1·13
.. ..	·0	1·85	2·3	·9	2·2	·0	·89	1·17
ck ..	·9	·94	1·07	·94	1·0	1·3	·75	·98
urch ..	1·6	·57	·57	1·3	1·3	·38	2·06	1·11
ban istricts ..	·8	·88	1·1	1·0	1·1	1·1	1·07	1·01

RURAL DISTRICTS.	1900	1901	1902	1903	1904	1905	1906	Average for years 1900—1906
Atcham	1·1	1·19	1·1	·95	1·06	1.4	·91	1·07
Bridgnorth ..	·6	·81	·93	1·1	·46	·46	·93	·78
Burford	·0	·81	·82	1·6	1·6	1·6	·00	·93
Chirbury ..	1·2	1·69	·85	·84	1·1	·84	·84	1·09
Church Stretton..	·8	1·11	1·54	1·3	·22	1·3	·67	1·03
Cleobury Mortimer	·6	·74	1·2	·94	·15	·62	·46	·69
Clun	1·5	1·31	·73	·74	1·8	·59	1·35	1·16
Drayton	·7	·94	1·3	1·0	1·3	·34	·77	·92
Ellesmere ..	·7	·88	·5	1·2	·63	·63	1·39	·87
Ludlow	·9	·78	·52	·84	1·0	·94	·52	·80
Newport	1·6	1·14	·83	1·3	·98	·99	·99	1·15
Oswestry.. ..	·7	1·21	·74	1·2	1·5	1·1	1·54	1·15
Shifnal	·6	·34	1·2	·67	·68	1·1	1·13	·84
Teme	·5	1·08	·0	·0	1·08	3·2	1·08	1·00
Wellington ..	·6	1·01	·6	·52	1·1	1·3	·60	·83
Wem	·7	·72	1·08	·48	·60	·60	·84	·72
Whitchurch ..	·0	1·55	·0	1·55	·0	1·5	·52	·75
All Rural Districts ..	·8	·99	·87	·94	·96	·98	·94	·95

Table 13.

DEATH-RATES FROM CANCER.

YEAR.	REGISTRATION COUNTY OF SHROPSHIRE.	ENGLAND AND WALES.
1894	·705	.713
1895	·989	·755
1896	·923	·764
1897	1·060	·787
1898	1·028	·802
1899	·976	·829
1900	·931	·828
1901	·965	.842
1902	1·059	·844
1903	1·033	·872
1904	1·024	·879
1905	1·044	·885
Average of 12 years 1894—1905	·978	·816
Average of 10 years 1881—1890	·704	·589

Table 14.

CANCER IN AGE PERIODS 1881—1890.

AGE PERIODS.	Deaths from Cancer in age periods expressed as a percentage of total deaths from Cancer.		Death-rates from Cancer per 1000	
	Shropshire (Registration County).	England and Wales.	Shropshire (Registration County).	England and Wales.
35—45	8%	11%	·5	·6
45—55	19%	22%	1·4	1·5
55—65	26%	28%	2·5	2·8
65 and upwards.	42%	33%	4·4	4·2

The death-rate from cancer which has been showing an upward tendency for many years was slightly less than that for the preceding year.

Table 12 shows the rates in the districts for each year since 1900 and the average for seven year period 1900—1906. The urban rates have been almost consistently higher than the rural rates, notwithstanding the age distribution of the population which would favour a higher rate in the rural districts. In the rural districts 15·5 per cent. of the population are over 55 years of age, the age most severely affected by cancer, whilst in the urban districts only 13·1 per cent. of the population are over this age. It seems therefore as if the causes of cancer whatever they are, are distinctly more operative, so far as Shropshire is concerned, in the towns than in the country.

As pointed out in previous reports the crude death-rates from cancer in the different districts depend so much upon the age distribution of the population, that it would be far preferable to calculate the rates upon the population over 45 years of age. If this were done throughout the country, cancer rates of some value for comparison would be obtained. The method applied to the sanitary districts of Shropshire for the period 1900—1906 gives the following results :—

DEATH-RATES CALCULATED UPON THE POPULATION OVER 45 YEARS OF AGE.

URBAN DISTRICTS.

Bishop's Castle	2·8	Oakengates ..	4·4
Bridgnorth ..	5·3	Oswestry ..	4·1
Church Stretton	2·0	Shrewsbury ..	4·8
Dawley ..	4·3	Wellington ..	5·3
Ellesmere ..	5·2	Wem ..	5·2
Ludlow ..	5·1	Wenlock ..	4·1
Newport ..	5·4	Whitchurch ..	5·1

Combined Urban Districts .. 4·6

RURAL DISTRICTS.

Atcham ..	3·9	Ludlow ..	3·4
Bridgnorth ..	3·2	Newport ..	4·8
Burford ..	3·6	Oswestry ..	4·7
Chirbury ..	4·2	Shifnal ..	3·7
Church Stretton ..	3·6	Teme ..	4·1
Cleobury Mortimer	2·9	Wellington ..	3·5
Clun ..	4·6	Wem ..	2·9
Drayton ..	3·6	Whitchurch ..	3·2
Ellesmere ..	3·7		

Combined Rural Districts .. 3·9

Accidents and Diseases of Parturition.—There were 14 deaths in the county from these causes, not including puerperal fever, 10 in the rural, 4 in the urban districts. The numbers for previous years were 25 in 1905, 16 in 1904, 15 in 1903, 21 in 1902, and 25 in 1901.

These deaths are of special interest in connection with the administration of the Midwives Act. It would be a great aid to the efficient administration of the Act if all deaths of women within a certain period of childbirth were reported to the county council by the Registrars of Births and Deaths.

BACTERIOLOGICAL DIAGNOSIS OF DISEASE.

Quarters of 1906.	For Typhoid Fever. Widal's Reaction.			For Diphtheria.			For Phthisis.	
	Positive	Doubtful	Negative	Positive	Doubtful	Negative	Positive	Negative
First ..	1	0	0	23	3	35	8	11
Second ..	4	0	6	16	2	35	6	16
Third ..	6	2	9	25	3	27	6	14
Fourth ..	2	0	10	59	0	42	8	14
Whole year	13	2	25	123	8	139	28	55
	40			270			83	

The total number of specimens sent was 393, compared with 299 in 1905 and 299 in 1904.

It will be observed that the number of specimens sent for examination last year was greatly in excess of the previous year. The numbers of specimens examined each year since the arrangement was made are :—1900—116, 1901—225, 1902—165, 1903—239, 1904—299, 1905—299, 1906—399.

To those of the last three years must be added a considerable number which I have examined myself.

The facilities given for arriving at a diagnosis are appreciated more and more each year, and the examination is made each succeeding year to a greater extent for the purpose of determining freedom from infection in diphtheria.

VACCINATION.

I have been able to compile the vaccination statistics through the courtesy of the vaccination officers, who have kindly supplied me with all particulars.

The figures show that infantile vaccination is still very satisfactory in the county, although not quite so good as in 1904. It was only to be expected that the high standard of vaccination that was reached when small-pox was prevalent, would not be quite maintained after the disease had disappeared, but the decrease in efficiency has been only very slight, 3·9 per cent. of unvaccinated children compared with 3·4 in 1904.

Reference to Table VI will show that there is considerable difference in the efficiency of vaccination in different districts. The number of unvaccinated children varied from ·8% in Church Stretton, ·9% in Newport, 1·7% in Bridgnorth, and 1·8% in Drayton to 9·5% in Clun, 9·6% in Whitchurch, and 12·9% in Wem. It is very evident therefore that vaccination is not altogether satisfactory in all the districts.

The districts of Clun, Drayton, Ellesmere, Ludlow, and Madeley are sub-divided and each division is worked by a separate vaccination officer. The percentage of unvaccinated children varies considerably in each sub-district. For instance the high rate of un-vaccinated children in the Clun district is due entirely to the excessive rates in the Clun and Lydbury sub-districts.

Percentage of un-vaccinated children in the vaccination sub-districts

CLUN.	
Bishop's Castle	3·5
Clun	14·9
Lydbury	10·0
Norbury	6·7
DRAYTON.	
Drayton	2·5
Moreton Say	0·0
ELLESMERE.	
Baschurch	0·0
Ellesmere	2·7
LUDLOW.	
Clee Hill	1·2
Ludlow	6·9
Munslow	4·4
Diddlebury	8·6
MADELEY.	
Broseley	4·6
Dawley	·4
Madeley	5·3
Much Wenlock	8·3

TABLE VI.

SHEWING VACCINATION OF INFANTS BORN IN 1905 AND FIRST HALF OF 1906.

VACCINATION DISTRICTS.	Births.	Successfully Vaccinated.	Insusceptible of Vaccination	Certificates of Conscientious Objection.	Died Unvaccinated	Vaccination Postponed.	Removed out of District.	Unaccounted for.	NUMBERS EXPRESSED AS PERCENTAGES OF BIRTHS REGISTERED.		
									Successfully Vaccinated.	Exempted by "Conscientious Objection" Certificates.	Unvaccinated including (1) Conscientious Objectors. (2) Postponed. (3) Unaccounted for.
					1905.						
ATCHAM	1169	1017	1	10	91	17	29	4	87·0	·9	2·7
BRIDGNORTH	359	322	0	2	18	4	13	0	89·7	·6	1·7
CHURCH STRETTON ..	118	110	0	0	7	1	0	0	93·2	·0	·8
CLEOBURY MORTIMER .	237	218	0	5	8	3	0	3	91·9	2·1	4·6
CLUN	211	173	0	13	16	7	2	0	82·0	6·1	9·5
DRAYTON	333	302	0	1	20	2	5	3	90·7	·3	1·8
ELLESMERE	233	211	0	1	18	3	0	0	90·6	·4	1·7
LUDLOW	411	347	1	22	36	1	4	0	84·4	5·3	5·6
MADELEY	710	638	1	19	42	6	4	0	89·8	2·7	3·5
NEWPORT	349	303	0	1	31	2	12	0	86·8	·3	·9
OSWESTRY	805	676	1	2	64	15	22	25	83·6	·2	5·2
SHIFNAL	275	245	0	2	14	4	10	0	89·1	·7	2·2
WELLINGTON	755	650	1	14	60	5	15	10	86·1	1·8	3·8
WEM	249	201	1	10	11	3	4	19	80·7	4·0	12·9
WHITCHURCH	208	161	3	11	22	6	2	3	77·4	5·3	9·6
PARISHES OF CHIRBURY AND WORTHEN IN THE FORDEN UNION ..	63	58	0	0	4	0	1	0	92·1	·0	·0
TOTAL	6485	5632	9	113	462	79	123	67	86·8	1·7	3·9
					First Six Months of 1906.						
ATCHAM	555	462	0	9	41	13	11	19	83·2	1·6	7·4
BRIDGNORTH	164	138	0	5	10	2	4	5	84·1	3·0	7·3
CHURCH STRETTON ..	72	63	0	1	8	0	0	0	87·5	1·4	1·4
CLEOBURY MORTIMER .	122	102	0	4	9	5	1	1	83·6	3·3	8·2
CLUN	95	83	0	2	8	1	1	0	87·3	2·1	3·2
DRAYTON	173	152	0	0	12	5	4	0	87·8	·0	2·9
ELLESMERE	114	96	0	3	11	3	1	0	84·2	2·6	5·2
LUDLOW	211	162	0	13	23	5	8	0	76·8	6·1	8·5
MADELEY	323	274	0	9	23	9	8	0	84·8	2·8	5·6
NEWPORT	163	136	0	5	10	1	10	1	83·4	3·0	4·3
OSWESTRY	392	310	1	5	30	17	7	22	79·1	1·3	11·2
SHIFNAL	145	123	0	1	9	3	9	0	84·8	·7	2·8
WELLINGTON	366	307	0	6	33	4	7	9	83·9	1·6	5·2
WEM	not received.		—	—	—	—	—	—	—	—	—
WHITCHURCH	131	104	2	5	11	4	2	3	79·4	3·8	9·2
PARISHES OF CHIRBURY AND WORTHEN IN THE FORDEN UNION ..	31	30	0	0	1	0	0	0	96·8	·0	·0
TOTAL	3057	2542	3	68	239	72	73	60	83·1	2·2	6·5

Table 14.

PERCENTAGE OF UNVACCINATED CHILDREN IN THE YEAR 1893—1905.

Unions.	1893-1897	1898	1899	1900	1901	1902	1903	1904	1905
Atcham	11·9	9·4	6·7	4·4	3·7	4·0	1·9	2·9	2·7
Bridgnorth	7·1	8·3	8·6	5·3	6·5	4·2	2·9	2·7	1·7
Church Stretton ..	2·4	3·2	·9	2·8	2·5	1·7	1·4	1·6	·8
Cleobury Mortimer ..	4·8	5·4	6·4	4·6	6·3	5·5	1·7	4·0	4·6
Clun	34·2	18·8	12·4	11·2	9·0	9·5	4·4	6·8	9·5
Drayton	1·7	3·6	4·2	4·8	2·8	2·2	·3	1·7	1·8
Ellesmere	2·9	1·6	3·0	2·9	3·2	1·1	1·9	1·1	1·7
Ludlow	7·5	9·9	6·7	7·0	5·7	4·6	3·8	5·5	5·6
Madeley	5·2	8·2	6·2	2·3	3·2	2·3	3·4	3·3	3·5
Newport	5·3	9·6	5·9	5·6	5·4	3·5	2·6	3·9	·9
Oswestry	3·9	5·8	3·1	4·1	2·7	2·2	2·1	2·2	5·2
Shifnal	15·7	8·5	7·8	2·0	1·8	1·5	2·8	3·0	2·2
Wellington	39·7	33·9	23·8	9·6	6·1	7·0	4·9	4·2	3·8
Wem	1·6	7·5	7·9	6·3	5·2	5·1	3·9	5·0	12·9
Whitchurch	5·1	13·4	16·7	9·5	5·6	7·4	6·5	5·8	9·6
Total ..	11·0	10·8	8·3	5·4	4·4	4·0	3·0	3·4	3·9

The following paragraphs taken from my report for 1905 are still very applicable :—

" At the present time, owing to a likelihood that the law relating to vaccination may shortly be modified, it is extremely desirable that every authority responsible for the public health should give this matter their careful consideration. From my knowledge of the outbreaks of smallpox in this County during the years 1902, 1903, and 1904, I have no hesitation in saying that the preventive measures taken would have been quite insufficient to prevent a very serious epidemic, if it had not been for the protection afforded by vaccination."

" It is greatly to be hoped that in any alteration of the law, the protection of the public against small-pox will be increased and not relaxed. A concession might be made without any appreciable danger by raising the age of vaccination to twelve months or even two years, except in times of epidemic, but this should be accompanied by re-vaccination of the children on leaving school. There can be no doubt that with re-vaccination properly carried out, smallpox except for isolated cases would be a thing of the past."

SCHOOLS AND SCHOOL ATTENDANCE.

I have received notice of the closure of 83 schools. The causes of the closures were in 33 instances whooping cough, in 14 measles, in 15 scarlet fever, in 9 diphtheria, in 3 mumps, in 4 chicken-pox, in 1 typhoid fever, in 2 sore throat, and in 2 the illness was not mentioned.

The following quotation from my annual report for 1905 is still applicable :—

" It will be observed that the schools were mostly closed on account of diseases that are not notified by medical men, and as no form of notification has been arranged for by the school authorities, it follows that these schools have been closed in most instances without the information, on which alone closure can be satisfactorily applied. Not only is closure applied to a great extent in the dark but little knowledge is being gained as to its effect so as to guide future action."

I have drawn up a memorandum dealing with this and other matters concerning infectious disease, and it is now under consideration with a view to adoption.

In my last report the opinion of several District Medical Officers was quoted in favour of teaching the principles of infant feeding to the older girls. This matter is now under the consideration of the School Management Committee, and probably some practical outcome will shortly result. The great difficulty, however, is in teaching a new and somewhat technical subject by teachers who have not received any special instruction in it.

It seems very probable that systematic medical inspection of school children will shortly become compulsory.

It is a measure which if efficiently carried out will have a far reaching effect on the physique of the rising generation. It will also have a very beneficial effect upon education as ordinarily considered, that is education of the mind. If, however, it is done in a perfunctory manner it will be little short of useless.

DISINFECTION.

The Wem Urban and Rural Districts have bought a portable disinfector, and the Ludlow Urban and Rural Districts have this matter under consideration. Otherwise no further progress has been made towards the provision of steam disinfectors by the sanitary authorities. As disinfection by steam is the only method of disinfecting beds, carpets, clothes, curtains, and all unwashable textile materials, it must be recognised that the disinfection attempted without such apparatus must be very inefficient and unsatisfactory.

Although it seems almost incredible, considering how important a steam disinfector is in preventing infectious disease, the Borough of Shrewsbury is still without one. The provision of a disinfector has been recommended by Dr. Gepp from year to year and his recommendation was adopted by the Sanitary Committee in 1902, but was referred back by the Council. He has again brought forward this recommendation, and it is to be hoped that its importance will this time be recognised. Amongst other things, it will be impossible to carry out the measures for the prevention of phthisis satisfactorily without a steam disinfector. This of itself should be sufficient argument in its favour.

Sec. E. (5) of the Rules of the Central Midwives Board says—" Unless otherwise directed by the local supervising authority all washable clothing should be boiled, and other clothing should be sent to be disinfected by the local sanitary authority."

It is needless to say that so far as relates to the disinfecting by the local sanitary authority, this rule is inoperative in the greater part of the County.

There are at the present time five steam disinfectors belonging to the Sanitary Authorities of the County, viz. : at Bridgnorth, Wellington, Drayton, Atcham, and Wem Urban and Rural. Small, but efficient disinfectors can be obtained for a sum of £25—35, and every Sanitary Authority and every Workhouse should have one.

In many of the districts disinfection of houses is carried out by the sanitary inspector or under his supervision. There are, however, other districts, where the most unsatisfactory plan is adopted of supplying the householder with disinfectants and leaving the disinfection to him.

HOSPITAL ACCOMMODATION.

The following is a statement of the position of the County with regard to hospital accommodation :—

For Small-pox.

1.—A hospital for 6 beds	for Shrewsbury and a Berthon Hut to be used in an emergency.
2.—A hospital for about 8 beds	for Cleobury Mortimer, Burford and Tenbury and Rock in Worcestershire.
3.—A hospital for about 6 beds	for Ludlow Urban and Rural Districts.
4.—A hospital for 6 beds	for Chirbury and the other districts in the Forden Union.
5.—A hospital for 8 beds	for the districts of Whitchurch Urban and Rural, Wem Urban and Rural, and Drayton Rural.
6.—A hospital for 8 beds	for Shifnal and Dawley.
7.—A hospital for 8 beds	for Wellington Urban and Rural Districts.
8.—A hospital for 8 beds	for the Borough of Wenlock, at Broseley
9.—An isolated cottage	for Bishop's Castle and Clun.
10.—An isolated cottage	for Teme and Knighton Urban and Rural Districts.
11.—A Berthon Hut and Small Tent.	for Atcham Rural District.

Also the following sites have been secured for putting up buildings or tents in case of emergency :—

1.—One to serve Oswestry Borough.
2.— ,, ,, Oswestry Rural District.
3.— ,, ,, Newport Urban and Rural Districts.

The Borough of Bridgnorth makes use of its infectious diseases hospital for small-pox cases when necessary.

Oakengates Urban District has not come to any agreement with Shifnal with regard to the use of their hospital, and consequently that district is still without satisfactory accommodation.

Ellesmere (U. and R.) and Bridgnorth (R.) are quite without hospital accommodation except that at the workhouses.

Dr. Gepp recommends to the Atcham Council the acquisition of a site and the erection of a cottage as a nucleus to deal with any outbreak of small-pox or serious outbreaks of other infectious disease ; or better still, as the district is so large, three cottages suitably placed.

Other Infectious Diseases.—The accommodation in the County consists of (1) a small hospital at Bridgnorth, also used for small-pox ; (2) a hospital of 4 beds for the Newport Urban District ; (3) a hospital of 8 beds at Market Drayton for the Drayton and Blore Heath Rural Districts.

The Church Stretton Urban District Council has failed to find a suitable cottage. Dr. Gepp advises that a site be obtained and a cottage built as a nucleus.

Dr. Griffiths (Teme), says :—

"None of the cases of infectious disease were removed to the isolation hospital ; this is not at all a suitable building. It is altogether too small and is inconveniently arranged."

Dr. Cranstoun recommends the provision of an isolation hospital for Ludlow, either by the Borough alone, or in conjunction with the Rural Council, and suggests that two beds should be provided for every thousand inhabitants.

Dr. Gepp reports at some length on the provision of a hospital for Shrewsbury and recommends, as a minimum, a hospital of 20 beds in two blocks (see page 89).

HOUSING ACCOMMODATION.

The following quotations from the District Medical Officers' Reports will give an idea of the nature of the housing accommodation and the problems that have to be faced :—

Atcham Rural District.—" Speaking generally, house accommodation is adequate in amount, and taking the district as a whole is in fair condition. No house was certified by me as unfit for habitation during the year. As in most rural districts, there is a large number of very old houses becoming worn out and needing frequent inspection and attention to keep them above the border line of unfitness."

Bishop's Castle.—" There is very little building of new cottages. A good deal of improvement is noticeable in the appearance and state of repair of old cottage property in recent years, but many cottages are of poor construction and require constant attention to keep them in habitable condition."

Chirbury Rural District.—" Many houses present grave defects in the way of sanitation."

Church Stretton Rural District.—" Speaking generally, the cottages of the district are of considerable age and often undesirably small for family occupation. There are on one or two estates good modern cottages, but with a diminishing population the building of new cottages is altogether exceptional. There are many houses in a practically worn-out condition, and needing periodical inspection to keep them up to a habitable standard."

Clun Rural District.—" Speaking generally, the housing conditions in the District are very fair, though there are many old houses requiring periodic inspection and attention to keep them in habitable condition."

Newport Urban District.—" There are a good many houses in a more or less worn out condition and requiring frequent supervision."

Newport Rural District.—" In the industrial area there are many houses of unsatisfactory type, one storey houses, often in long rows." (See page 81).

Oakengates Urban District.—" It is a fact that over 90 per cent. of the cottage property throughout this district have most of their chimneys merely for ornament. The faulty construction or other defects make it impossible for most of the cottages to have fires in their bedrooms, particularly upstairs, and a very large number have neither fireplace nor chimney. This militates greatly against the adequate dealing with infectious disease, making it almost impossible to have proper isolation."

Oswestry Rural District.—" One of our great difficulties has been how to deal with the older houses, many of which are damp and unhealthy, without condemning the same. If we ordered them to be closed, it would be most difficult to replace them at their present rental............" " A considerable number of new houses have been erected at a rental of £10 and upwards, but there is a great need for cheaper houses."

Shrewsbury. "As I have stated before, the housing problem in Shrewsbury lies in its inheritance, from the 17th and 18th centuries chiefly, of a very large number of old houses badly spaced on area, badly designed, and, though strongly built, in a condition now of natural decay. There has been no extensive modern business development such as in a manufacturing town might have led to a clearance of old property. There remains therefore a large number of very old houses which from defects of situation or structure, exhibit feature of dampness, or insufficient light and ventilation, or dilapidation due to age, and do not afford wholesome conditions of habitation.

"The Sanitary Committee are giving close attention to the question of the fitness and condition of old house property of the poorer class and have several properties and individual houses under consideration. One difficulty which has to be faced is the provision of better accommodation for those who now occupy the unsatisfactory old property at low rentals, from 2/- to 3/6 per week, and whose means do not allow of a much higher rent. It appears that to enable a more stringent standard to be applied generally to much of the old property, it is most desirable and even necessary for the Corporation to build houses for the working classes. I would most strongly recommend the Council to consider closely the powers given them by the various Housing Acts, and to make a beginning by building some thirty houses to be let at a rental of 3/6 to 4/- per week, as this should be possible without laying a serious charge upon the rates. To build houses which require a rental of over 5/- per week as return for the expenditure would not in my opinion be of any assistance to the class most needing more healthy housing conditions."

Wellington Urban District.—"Overcrowding has been dealt with in ten cases, but I am afraid many more exist."

Borough of Wenlock.—"Although good well-built cottages are met with, yet speaking generally the majority of the houses of the district are of old and some of very old, construction, and show the defects due to age and faulty construction. There is very little building of new cottages anywhere, and many of the old houses need constant attention to keep them from falling into a state of unfitness for habitation."

Whitchurch Urban District.—"In the yards and old streets of the town there are many old houses which require frequent supervision to keep them from becoming unfit for habitation."

It is evident that the problem in most districts is that there are many old worn out and insanitary houses, and that there is not sufficient building to replace them.

Until therefore the building of suitable houses can be stimulated into activity, or the Councils undertake the building themselves, it is evidently the duty of the sanitary authorities to exercise their powers to the utmost to keep the houses in as satisfactory a condition as possible. This can only be done if a frequent and careful house to house inspection is made. It must however be remembered that building depends upon demand, and so long as persons are allowed to live in cheap insanitary houses, so long there will be little demand for and little building of houses to replace these. It must be admitted that it is impossible to build houses for the poorest class and let them at a rent that will pay for the outlay. All that can be done is to build for a class somewhat above these in the social scale, in which case there will be a gradual moving up and the worst houses can be closed.

In the reports on the Bridgnorth Urban and Rural Districts, the Ludlow Rural District, and the Wellington Rural District there is no comment on the housing accommodation.

Dr. Beresford calls attention to a very important matter in connection with the building of houses in rural districts. He says (*Oswestry Rural Report*)—"Your Council should take into consideration the urgent necessity of alterations in your by-laws as regards the quantity of land provided for new houses. At the present time a house can be built in your district not having any more space than a backyard of 150 square feet, or 5 yards by 3½ yards, which must be paved. Houses can also be built in unlimited rows. This in an urban district is not so great an evil, but in a rural district, where there is no sewerage worth talking about, nor public scavenging, and frequently without a public water supply, creates a serious menace to the health of the district, forgetting which fact the present tendency is to reduce the quantity of land to a dwelling more and more."

There can be no doubt of the seriousness of the evil here described, and if it can be remedied by means of by-laws, that is certainly the simplest way. It is doubtful whether by-laws can be made to meet the difficulty, on account of the very varying conditions that obtain through almost all rural districts. Much however can undoubtedly be done by insisting upon proper disposal of sewage, and a proper water supply. If persons, who build houses in rows without sufficient land, are afterwards compelled to provide an efficient sewage treatment scheme, they will discover that it is better to provide land to the cottages so that the sewage may be disposed of by individual occupiers. The strict enforcement of by-laws with regard to scavenging would have a similar effect.

Building by-laws and presumably proper inspection of new dwellings are in force in the Urban Districts of Bishop's Castle, Church Stretton, Dawley, Ellesmere, Ludlow, Newport, Oakengates, Oswestry, Shrewsbury, Wellington, Wem, and Whitchurch; and the Rural Districts of Atcham (part of), Cleobury Mortimer, Drayton, Ludlow, Oswestry, Shifnal, and Whitchurch.

In the following districts there are no by-laws and consequently buildings can be put up without conforming to sanitary conditions:—Bridgnorth (U. and R.), Burford, Chirbury, Church Stretton (R.), Ellesmere (R.), Newport (R.), Teme, Wellington (R.), Wem (R.), and Wenlock.

WATER SUPPLY.

The work carried out during the year makes the supply of the districts in East Shropshire, which were so badly off for water, and for which a bill was promoted in Parliament in the year 1904, almost an accomplished fact.

Lillcshall village, Muxton and Donnington are now supplied from a well in the Bunter Measures, the water being pumped by a wind engine to a reservoir on Lilleshall Hill.

Oakengates and Donnington Wood are to be supplied from a well in the same formation at Hilton Bank, the reservoir being placed on the high ground above St. Georges. The whole scheme should be in working order in a few months.

Dawley have made an agreement with the water authority of the Borough of Wenlock, for the supply of water in bulk from the deep well at Harrington. Plans have been got out and await official sanction.

Hadley has been supplied by the Wellington Urban Council, and this Council has applied to the Local Government Board for sanction for a loan to increase and improve their supply.

With regard to the Wellington Rural Parish Dr. Hawthorn says an agreement with Dawley for a supply is probable. If this is carried out, the only part of the district contained in the Oakengates and Dawley Joint Water Bill, that will not be supplied, will be the lower portion of the Wellington Rural Parish. Dr. Hawthorn remarks that the attention of the Council should now be directed to the supply of this portion of the parish, as it is equally in need of a good supply.

Remarks as to the actual water supply of the various districts will be found in Part II of this Report.

The following is a summary of the principal work mentioned in the district reports, that has been carried out for the improvement of water supplies and of schemes brought forward and investigations made for that purpose :—

For Meole Brace a duplicate 4-inch main has been laid at Hook-a-gate with the result that a better supply has been given.

Plans have been got out for supplying Bayston Hill from a well on Lyth Hill.

In the Atcham Rural District a systematic effort has been made to improve the water supplies, and improvements have been made at Bomere Heath, Wheat Hall, Berrington, Dorrington, Longden, Longden Common, Castle Pulverbatch, Ryton, Hanwood, Rose Hill, Cross Hill, Betton, and Sheinton.

A scheme is under consideration for increasing the supply to the town of Clun.

The Clungunford supply has been extended.

The Market Drayton supply has been extended to Betton and arrangements have been made to supply Norton.

At Ludlow a scheme has been got out for supplying the higher part of the town and improving the supply generally.

A supply to Gobowen and Whittington will probably be completed during the year.

Dr. Griffiths reports that there is a prospect of a satisfactory scheme being adopted for Bucknell.

In the Wem Rural District plans have been got out for supplying Tilley, Barker's Green, and Aston with water from the Urban Council's main.

At Much Wenlock an investigation has been made for the purpose of adding to the present supply.

A scheme has been under consideration for augmenting the supply to Bishop's Castle.

Besides the more general recommendations for dealing with polluted well supplies, the following specific recommendations are made :—

Increased filtration of the river water supply to the Borough of Bridgnorth.

Filtration of the Town Brook Valley supply to Church Stretton Urban District.

The extension of Church Stretton supply to All Stretton and Little Stretton.

Schemes of water supply for Clunbury and Clunton and Brockton, in the Clun Rural District.

Dr. Macqueen remarks that the water supplies of Cheswardine and other villages in the Drayton Rural District are still unsatisfactory, and the matter is under the consideration of the Council.

Dr. Hoffman (Ellesmere Rural District) proposes acting on Dr. Whitaker's suggestion that where water is obtained from shallow wells in porous subsoil, samples should be taken for analysis.

Dr. Griffiths (Teme Rural District) remarks that the Kinsley water supply is still in the same unsatisfactory condition, and that an increased supply is required for Llanfair.

On page 90 a full quotation from Dr. Gepp's report is given on the Shrewsbury water question. I am in entire agreement with his strong condemnation of the present most unsatisfactory supply. It seems almost incredible that any thought of perpetuating such a supply should be entertained.

It is evident that a considerable amount of work is being done throughout the county in improving water supplies, but much greater activity, particularly in rural districts, will be necessary if the present unsatisfactory water supplies are to be improved within a reasonable time.

The action of the Atcham Rural District Council in taking this matter up and systematically dealing with defective supplies is to be commended to other Rural District Councils throughout the county.

The following quotation taken from my Annual Report for 1905 is still applicable and should have the careful consideration of all Rural District Councils :—

> "No action appears to have been taken by any of the Councils on the lines suggested by Dr. Gepp for improving well supplies. If, as he suggests, the majority of wells can be made reasonably safe by the expenditure of the amount specified in the Public Health (Water) Act, 1878, it undoubtedly is the duty of the Rural District Council to take action in these cases on it coming to their knowledge that the wells are polluted. It cannot be too much insisted upon that, to quote from sec. 3 of that Act, "It shall be the duty of every Rural Sanitary Authority, regard being had to the provisions in this Act contained, to see that every occupied dwelling-house within their district has within a reasonable distance an available supply of wholesome water, sufficient for the consumption and use for domestic purposes of the inmates of the house." If the authority cannot compel the owner to provide a supply it is their duty to provide it. Nor can this responsibility be moved on to the Parish Council concerned. For the Parish Council to merely reject a scheme on account of cost is not sufficient, they should at least bring forward some alternative suggestion, as the Rural District Council strictly have no option but to provide a supply or see that a supply is provided if the houses have not "within a reasonable distance an available supply of wholesome water." Instances are quite numerous in which the Rural District Councils have drawn up schemes either for water supply or sewerage and sewage disposal, and submitted them to the Parish Councils who have rejected them on account of cost. The matters have then been allowed to drop. The following examples may be cited from the present report—water supplies for Clunbury, Clun, Whixall, Prees. The Parish Council has a right under sec. 16 (3) of the Local Government Act, 1894, to receive notice when plans of sewerage or water supply have been adopted by the District Council, and no doubt they have a right to criticise and state objections, but the decision and responsibility of such decision must remain with the District Council."

I have reported during the year on the water supplies of the following Districts :—(1) Atcham Rural District ; (2) Church Stretton Urban District and the villages of All Stretton and Little Stretton ; (3) Burford Rural District ; (4) The Borough of Bishop's Castle ; and these reports have been forwarded to the District Councils, attention being specially called to certain parts.

EXCREMENT DISPOSAL.

Throughout the rural districts the method of disposal is by privies with underground vaults, mostly of a very objectionable type. The remedy is conversion into some form of earth closet except in those rare instances where a water supply and proper sewers are available.

In the Atcham Rural District an effort is being made to improve the privy closets ; 7 were converted to water closets and 64 to pail closets during the year.

At Bishop's Castle a sewerage scheme is necessary to allow of the conversion of defective privies to water closets.

At Clun the abolition of privy closets discharging directly into streams is recommended.

For Market Drayton and Little Drayton it is recommended that the water carriage system should be made general.

At Craven Arms, in the Ludlow Rural District, 24 privies have been converted to water closets.

The conversion of privies to water closets is recommended in the Newport Urban District. Nineteen were so converted during the year.

In Oakengates, when the water supply is completed, many of the old privies will be converted to water closets.

The conversion of privies to water closets in the town of Shifnal is advocated.

A good many privies have been converted to water closets in Much Wenlock in recent years, but the absence of satisfactory sewers has often prevented this conversion both in Much Wenlock and in other towns in the Borough.

TABLE VII.

Record of Sanitary Work done during the Year 1906.

Table showing the work done by the various Sanitary Inspectors; the Returns are made on a uniform plan as far as possible.

SANITARY AUTHORITY.	Number of Houses which have been inspected during the year, either in connection with outbreaks of Infectious Disease, or in consequence of complaints, or in course of a Systematic Sanitary Survey.	Total Number of Notices of all kinds served, including both formal and informal Notices.	Number of such Notices complied with.	Particulars of Sanitary Matters referred to in the above Notices.								Number of cases in which proceedings before Magistrates have been taken for failure to comply with any of the above Notices.	Proceedings taken before Magistrates with reference to			Letters Written.
				Houses to be disinfected after Infectious Disease.	Deficient or objectionable Water Supply.	New Drains to be constructed or old Drains to be amended.	New Closets to be provided or old ones to be amended in construction.	Houses damp, dirty, or admitting rain or weather, or otherwise in a bad sanitary condition.	Offensive Accumulations of all kinds.	Animals so kept as to be a Nuisance.	Houses Overcrowded.		Exposure of Bad Meat for Sale.	Public Exposure of Infected Persons or Things.	Offences against By-Laws and Regulations relating either to Lodging Houses, Slaughter Houses, Dairies and Milkshops, &c.	
RURAL DISTRICTS.																
Atcham	966	364	284	57	39	91	92	39	26	15	6	0	..	..	..	378
Bridgnorth	2019	108	93	17	39	65	34	6	13	..	1	0	..	..	..	..
Burford	35	..	..	9	4	2	3	..	..	..	..	..	..	..	..	10
Chirbury	514	106	63	19	..	8	16	8	17	..	3	..	..	..	..	..
Church Stretton	412	47	43	..	2	7	4	2	..	..	2	0	..	..	..	81
Cleobury Mortimer	140	7	7	12	1	5	9	5	2	3	..	..	..	..	..	..
Clun	98	23	20	..	3	6	1	9	..	4	..	..	..	..	..	31
Drayton	749	312	304	38	9	36	10	12	239	5	1	..	..	..	..	..
Ellesmere	520	62	62	29	1	40	12	1	14	..	..	..	..	..	..	100
Ludlow	160	30	30	36	several	15	32	several	several	very few	10	..	..	..	..	50
Newport	256	62	62	62	15	8	8	13	3	1	3	..	..	..	..	142
Oswestry	600	153	130	25	3	10	6	3	100	3	2	..	..	..	..	20
Shifnal	135	176	273	25	20	70	57	5	75	12	3	..	..	..	..	150
Teme	80	5	5	3	..	..	2	5	..	..	..	..	..	..	..	3
Wellington	122	28	15	..	32	18	32	7	3	..	1	..	..	..	..	15
Wem	694	249	193	12	142	71	39	23	30	2	8	..	..	..	..	227
Whitchurch	89	35	29	9	10	7	10	1	3	..	..	..	..	..	..	..
URBAN DISTRICTS.																
Bishop's Castle	285	29	29	..	..	2	2	1	24	..	..	..	..	..	..	7
Bridgnorth	not received.		..	..	..	..	..	..	..	..	..	..	..	..	..	..
Church Stretton	320	13	13	..	..	12	..	..	1	..	..	..	..	..	..	110
Dawley	940	323	321	8	2	77	7	23	156	6	12	..	..	..	..	430
Ellesmere	355	57	57	1	..	3	3	46	..	..	..	0	..	..	..	25
Ludlow	163	98	30	..	..	34	19	7	7	3	2	1	..	..	..	..
Newport	156	10	10	6	..	2	6	21	*1083	..	..	..	..	..	..	20
Oakengates	961	203	190	124	2	278	157	37	34	9	4	0	..	..	..	169
Oswestry	1800	94	90	10	2	63	11	13	32	3	..	0	..	..	..	11
Shrewsbury	1673	783	758	72	44	237	103	65	219	18	21	0	..	..	..	137
Wellington	276	169	147	67	..	21	41	27	4	2	10	..	..	..	..	182
Wem	650	30	29	5	..	12	10	11	710	..	2	0	..	..	..	28
Wenlock	1343	454	420	..	9	79	79	54	211	10	3	..	..	..	..	382
Whitchurch	665	179	143	37	10	50	85	30	55	4	3	..	1	..	..	81

* Includes supervision of public scavenging.

SEWERAGE AND DRAINAGE.

The various matters of detail connected with the sewerage and drainage of the districts vill be found in Part II of the report.

In Newport Urban District and in Shrewsbury all new drains and drains that are re-laid have o stand the water test. Dr. Cranstoun again recommends that every joint should be made to tand the water test, so that apparently his previous recommendation has not been adopted.

It is extremely important that in every district where there is a system of sewerage, the lrains should be submitted to the water test and thoroughly inspected before being covered up. In those districts where a sewerage scheme is being carried out, or is likely soon to be carried out, he District Councils would be well advised to adopt drainage regulations under sec. 21 of the ublic Health Act, 1875, and provide means for the water testing of all new drains.

SEWAGE DISPOSAL.

No sewage disposal works of any considerable size have been opened during the year.

The following Local Government Board Inquiries have been held into applications for loans or sewerage and sewage disposal works :—

1).—At Wem, on February 28th, into an application by the Urban Council for sanction to borrow £5,000 for the purpose of sewerage and sewage disposal. The Local Government Board required certain modifications and another inquiry has since been held.

2).—At Ellesmere, on March 1st, into an application by the Urban Council for sanction to borrow £3,500 for the purpose of sewerage and sewage disposal. The scheme was not approved, and the Council is now engaged in bringing forward another scheme.

3).—At Wellington, on July 3rd, into an application by the Urban Council for sanction to borrow £6,500 for the purpose of sewerage and sewage disposal.

4).—At Church Stretton into an application by the Urban Council for sanction to borrow £2,750 for the purpose of sewerage and sewage disposal. This sum was required for the completion of works already partially carried out.

I have reported specially in my quarterly reports on the sewage disposal works for Newport, Ludlow, Shifnal, Church Stretton, Whitchurch, Little Drayton, Highley, and have given analyses of he effluents, and these reports have been brought under the notice of the District Councils. have also reported upon the necessity for proper means of sewage disposal for Bishop's Castle, Hadley. Clun, Market Drayton, Much Wenlock, Weston Ryhn, Albrighton, and Cleobury Mortimer.

Schemes for treating the sewage of Bishop's Castle and Hadley have been prepared, and the next step will be a Local Government Board Inquiry. My reports on the other places mentioned have been forwarded to the District Councils and are now receiving their consideration.

The following are the important remarks bearing upon sewage disposal contained in the eports for the districts :—

Atcham.—" The Council has in hand improvements in sewage disposal at various places. At Meole the outfall tanks have, the Surveyor states, been put in good order and are working atisfactorily. A considerable area of hitherto untreated land is now being prepared for reception of sewage, with the object of giving other parts periods of rest. Several house drains have been aken out of the brook. At Minsterley a length of 90 yards of public sewer has been laid for the lrainage of some 14 houses near the station, which formerly drained into a ditch and caused uisance.

" At Pontesbury the Council has instructed the Surveyor to prepare a scheme of sewage lisposal. At Bayston Hill the Council has adopted plans by the Surveyor for improvement at he outfall."

Bishop's Castle.—" Plans have been prepared, and arrangements as to land and easement equired for the outfall works have now, I believe, been agreed upon."

Church Stretton Rural District—All Stretton.—"I made an inspection of the drainage o this village during the year. There are 48 houses in the village, with a population, ascertained by the Sanitary Inspector, of some 258 persons. Some 19 small houses or cottages drain direct to the brook by short lengths of drain, conveying slop water only. Eight other houses (one farm, one public house, one common lodging house and five cottages) are connected to a road drain discharging in a trench on grass land. Three private residences, having w.c.'s, drain to cesspits in their own grounds. Sixteen cottages discharge slop drainage on garden or field surface by separate short drains. There remain two houses, one a residence and the other a considerable private asylum with several water closets, the occupants of these two houses numbering 66 which are drained direct to the brook by a combined drain. The outfall of this drain causes serious pollution of the stream, and at times an offensive accumulation. The Council, to whom I reported these facts, is endeavouring to secure the diversion of this drain from the brook, and disposal of the sewage by more satisfactory means."

Cleobury Mortimer Rural District.—"In Cleobury, owing to the situation, any treatment of the sewage would be somewhat difficult. Earth closets should be insisted upon in all new houses and where possible in the old."

Dawley Urban District.—"The outfall of the main sewers is as a rule, into long open channels running through and out of the district and finally into water courses draining to the Severn. Considerable purification is evident in some of these open channels, running deviously through rough ground and between disused pit mounds and cinder hills."

Drayton Rural District.—"The Ducat bacterial filter erected at Quarry Bank for the treatment of the sewage of Little Drayton is still operating satisfactorily. The time has arrived when the scientific treatment of the sewage of Market Drayton should be provided for on similar lines. The river Tern is at present polluted with the sewage for a considerable distance. A comprehensive and efficient scheme of sewage disposal for the town is urgently required."

Newport Rural District.—"The drainage of Donnington Wood was greatly improved by a system of combined drainage carried out in 1905 by the Lilleshall Company and the principal property owners. Some fifteen more houses are now being connected to this drain, and an offensive condition of a watercourse will thereby be remedied."

Oakengates Urban District.—"There has been a considerable advance especially in obtaining owners to connect with the new drainage system...........For another large section of the district, viz., Ketley Bank, I understand you have applied to the Local Government Board for power to lay a new sewer there also."

Shifnal Rural District.—"The effluent at the outfall has been satisfactory for some time, but it varies, and very careful treatment over the land is necessary, where certain improvements would be advantageous, as cutting the rank grass and levelling and ploughing up parts of the land. At Albrighton the need for some improvement in the treatment of sewage has become imperative."

Wellington Rural District.—"A fresh site has been secured which will effectually deal with the sewage from the Trench end of the Parish." "A fresh site (for Admaston) has been secured which will be large enough to permit the sewage of the whole village being treated."

Wem Rural District.—"The scheme for sewerage of Prees notified in my report last year has not been adopted."

Wenlock.—"The sewers of the various towns in the borough are, generally speaking, old and imperfect, and appear in the main to be culverted water courses or drains laid originally to take surface water. The outfall of most of the main sewers is either directly into the Severn, or into streams which fall into the Severn within the district."

"In Much Wenlock and in Broseley and Madeley there appear to be no grave difficulties in the way of disposing of sewage by outfall works, but Iron-Bridge by its situation and physical features presents one of the most difficult problems for efficient and economical sewering. Jackfield across the river, presents another problem, but a smaller one."

SCAVENGING.

In the rural districts, with the exception of a few small houses, and large villages the disposal f house refuse is a matter entirely for individual occupiers. But in such towns and villages as arket Drayton, Shifnal, Hadley, Cleobury Mortimer, and Highley, it is very desirable either at there should be public scavenging or that facilitaties should be given and by-laws rictly enforced.

During the year I have reported on the scavenging of Market Drayton, and recommended e adoption of systematic public scavenging.

I would again call attention to the exemplary way in which this matter is dealt with in swestry. The Medical Officer of Health in his report says "The daily removal of refuse is still rried on with the best effect on the health of the town."

It cannot be doubted that the *systematic* removal of house refuse in towns, even of small ones, a sanitary matter of the greatest importance, and one which cannot be neglected without serious jury to the health of the inhabitants. It is not sufficient, however, simply to undertake the moval of refuse on request, but the removal should be systematic and at short intervals, for it only by adopting these methods that the real benefit of public scavenging can be obtained.

The following quotations from the District Medical Officers' Reports show the position of fairs with respect to scavenging in many of the districts :—

Bishop's Castle.—"The scavenging of privies and the removal of house refuse is left to the ouseholders. A 'tip' for refuse is provided by the Council."

Church Stretton (*Urban*).—"House refuse is removed regularly by a system of collection ranged by the Council."

Clun.—"A public tip is provided by the Council at Clun for the householders to dispose their house refuse."

Dawley.—"A scavenging cart has been purchased and the surveyor has been instructed to move refuse at the request and cost of the householders."

Drayton.—"The removal and disposal of refuse falls on the occupier, as no public system in force."

Ludlow (*Urban*).—"The refuse is now satisfactorily disposed of."

Newport (*Urban*).—"The scavenging of privies and removal of house refuse is undertaken the Council, who have a staff and plant for the work, and a site outside the town for sorting d disposal of the refuse."

Shrewsbury.—"House refuse is collected from all parts of the town by the Corporation carts eekly, and in some parts during the summer twice a week. Accumulations of refuse are, under is system, not found in the vicinity of houses. The refuse is tipped on low-lying ground ithin the Borough. Greater attention is now paid to the disposal of refuse at the "Tips" and mplaint of nuisance arising is rarely received. The important point is to cover with soil or ith dry ashes any refuse liable to decompose, and so to prevent offensive nuisance and the eeding of flies. The Improvement Committee has under consideration the whole question of e system of collection of house refuse."

Wenlock.—"In Madeley Ward this is effected by the Committee's public system, the ashes d refuse being taken away with the privy soil, on notice being given to the Surveyor."

"In the other divisions scavenging is effected by the owners or occupiers of houses. In roseley there are several public ashpits to which householders can remove their dry refuse, d these are scavenged by a contractor under the Committee."

Whitchurch (Urban)——"The question of the removal of house refuse has been under consideration and it has finally been decided to institute weekly removal from the more thickly populated and poorer part of the town, the refuse to be placed in front of the houses in bins. The scheme provides for a weekly collection from 208 houses."

The only district that appears to have made any considerable advance during the year in their scavenging arrangements is the Whitchurch Urban District. The scheme which they have adopted, however, is a very partial one, and can only be looked upon as an instalment of a proper scheme.

INSPECTION OF DAIRIES, COWSHEDS, &c., AND OF DAIRY CATTLE.

The following table compiled from the District Medical Officers' Reports shows the amount of inspection in each district. In the Reports for the Boroughs of Bridgnorth and Ludlow there are no details given.

URBAN DISTRICTS.	Number of Cow-keepers & Milk-sellers on Register.	Number of Inspections	Number of Notices. Verbal and Written.	Number of Notices Complied with.
Bishop's Castle	6	9	2	2
Bridgnorth ..	No particulars received.			
Church Stretton ..	4	16	—	—
Dawley	24	58	10	9
Ellesmere	15	15	—	—
Ludlow	No particulars received.			
Newport	18	4	—	—
Oakengates	22	88	—	—
Oswestry	23*	31	4	4
Shrewsbury ..	127†	78	25	19
Wellington ..	23	73	8	8
Wem	15	180	0	0
Wenlock	—	—	—	—
Whitchurch ..	28	125	7	7

* 10 of these reside outside the Borough.

† 31 of these are cowkeepers reside outside the Borough.

RURAL DISTRICTS.	Number of Cow-keepers & Milk-sellers on Register.	Number of Inspections.	Number of Notices, Verbal and Written.	Numb of Notic Compl with
Atcham	84	134	47	39
Bridgnorth ..	17	25	—	—
Burford	1	5	5	5
Chirbury	—	—	—	—
Church Stretton ..	16	64	—	—
Cleobury	7	—	—	—
Clun	5	8	2	2
Drayton	21	16	—	—
Ellesmere	20	40	12	12
Ludlow	24	twice	Verbal Notices when necessary	all
Newport	22	23	5	3
Oswestry	53	160	20	20
Shifnal	38	236	112	112
Teme	2	4	1	1
Wellington ..	15	20	2	2
Wem	0	0	0	0
Whitchurch ..	10	20	1	1

The figures show some slight improvement on previous years, but with a few exceptions the amount of inspection is totally inadequate to secure a clean milk supply.

During the year regulations have been adopted in the Borough of Bridgnorth and the Rural District of Wem. In the latter no inspections whatever have so far been made, and in the Borough of Bridgnorth the only information given is that "the dairies and cowsheds have been visited and are in a satisfactory condition."

In the Borough of Wenlock, to quote from the Report "Regulations were adopted in 1905 under the Dairies, Cowsheds, and Milkshops Order, 1885. Public notice was given during the year as to the necessity for persons carrying on the trade of dairymen, etc., to register, but up to the end of the year no applications had been received. Further notices are to be sent to dairymen and cowkeepers requiring them to take steps to become registered. Inspection of the premises will then follow."

"On this subject I would strongly recommend the Council, or the Committees, to arrange for the veterinary inspection of all cows on registered premises. In no other way can the order prohibiting the sale of milk from cows with tuberculous disease of the udder be enforced, and the importance of enforcing this cannot be emphasised too strongly..............."

"It is clear that action calculated to prevent the spread of tuberculosis among children, should be taken. Veterinary inspection of milch cows is necessary as the first step towards the elimination of cows with dangerous tuberculosis."

In the Drayton Rural District "The Dairies, Cowsheds, and Milkshops Order has now been adopted by the Council."

In the Wem Rural District "By-Laws with respect to these will come into force on January 1st, 1907."

In the Ellesmere Rural District "Cowsheds and Dairies have also been inspected and given attention."

In these three large dairying districts this is the only information given. Reference to the table will show that the total number of cowkeepers on the registers in the three districts combined is 41, notwithstanding the fact that registration has been compulsory since the passing of the Dairies, Cowsheds, and Milkshops Order of 1885. This Order is not adoptive, but is in force throughout the country, and Sec. VI. says (1) "It shall not be lawful for any person to carry on in the district of any local authority the trade of a cowkeeper, dairyman, or purveyor of milk, unless he is registered as such therein in accordance with this article. (2). *Every local authority shall keep a register* of persons from time to time carrying on in their district the trade of cowkeepers, dairymen, or purveyors of milk and shall from time to time revise and correct the register.

The Church Stretton Rural District Council have considered the adoption of regulations, and decided that they were not necessary.

The Newport Rural District have discussed the question of making regulations and so far nothing has been done.

It may be well to state briefly what is required—

(1) The registration of all Cowkeepers and Milksellers who come under the Order should be enforced.

(2) Satisfactory regulations should be adopted, particular attention being given to getting efficient clauses relating to cleanliness of the cows, milkers, and methods of collection.

(3) A systematic inspection should be instituted, every cowshed, etc., being visited at least once a quarter, and those where the methods are unsatisfactory being visited more frequently. The inspection should be directed not merely to the structural condition of the buildings, but to their cleanliness, the cleanliness of the cows, milkers, vessels, and the general conditions of collection, cooling, storage, and transmission of milk.

(4) A systematic veterinary inspection of dairy cattle, principally in order to detect tuberculosis of the udder.

Veterinary inspection of dairy cattle is not made in any district in the county.

The enormous importance of proper supervision of milk supplies in protecting the publi from tuberculosis is emphasised by the recent report of **The Royal Commission appointed t inquire into the Relations of Human and Animal Tuberculosis.** This report is of such vas importance from a public health point of view that it seems desirable to give a summary of th important points, with the conclusions arrived at in full.

The Committee was appointed to inquire into—

(1) Whether the disease in animals and man is one and the same ;

(2) Whether animals and man can be reciprocally infected with it :

(3) Under what conditions, if at all, the transmission of the disease from animals to man take place, and what are the circumstances favourable or unfavourable to such transmission.

The lines of investigation followed were to observe the microscopical and cultural qualitie of the various forms of bacilli found in human tuberculosis and compare them closely with thos found in bovine tuberculosis. Very extensive feeding and inoculation experiments were als made on animals with all the different forms of tubercle bacilli in varying doses and unde different conditions. The experiments were made with emulsions of disease products and wit cultures grown on artificial media.

The effect produced on an animal by inoculation is either local only and tending t retrogression and cure, or it is both local and general tending to a rapidly fatal termination Between these two extremes there are many intermediate results. The intensity of th tuberculosis produced depends upon the virulence of the bacillus for the particular animal an dose of bacilli injected. Consequently great care was exercised to measure the dose as accuratel as possible.

As the result of very extensive observations it was shown that cases of huma tuberculosis are caused by bacilli differing considerably in their characteristics, bu which may be classed in one of two groups. The organisms styled Group I are identical i every respect in their microscopical and cultural qualities and in their effect when injected int animals with the bacillus of bovine tuberculosis. The bacilli of this group used for the experiments were derived in one case from sputum, in 3 cases from tuberculous cervical glands, and i 10 cases from primary abdominal tuberculosis, all of course in the human subject. The followin quotations from the report show the conclusions arrived at with regard to bacilli of Group I.

"There can be no doubt, therefore, that the bacillus supplied to us from each of the case of Group I resembles the bacillus of bovine tuberculosis in being capable of producing a generalised progressive tuberculosis in the bovine body when injected subcutaneously."

"We do not think it necessary to dwell in any further detail at present on the features o the effects thus produced by the bacillus of Group I on bovine and other animals. We may sa definitely and at once that these effects appear to us to be absolutely identical with the effects o the bacillus of bovine tuberculosis ; we have wholly failed to discover any essential difference between the one and the other ; both are equally virulent, *i.e.*, equally able to set up tuberculosi in bovine and other animals."

The Committee then go a step further and arguing from a study of the individual case as to the seat of entrance of the bacilli, and the possible sources of the infection they make th following statement :—"We are therefore led to a conclusion, from which there seems to be n escape, not only that the tuberculosis which was present in each of the cases of Group I wa identical in all its features with bovine tuberculosis, but also **that the bacillus actually cam from a bovine animal ; the tuberculosis was bovine tuberculosis implanted in a human body**

In three of the cases of tuberculous intestinal glands not only were these glands affected ut also the lungs, and the bacilli in the lung affection were also exactly like bovine bacilli. The ommittee say " We may conclude beyond doubt that the whole disease was caused by the same ovine tubercle bacilli ; **the children died of bovine tuberculosis caused by bacilli introduced y way of the alimentary canal, and probably conveyed through cows' milk."**

The bacilli styled Group II are distinguished from Group I and bovine bacilli by the xuriance of their growth on artificial media, and by their effect upon bovine and other animals. hese bacilli injected into bovine animals even in large quantities produced only a more or less ocal and retrogressive form of tuberculosis, and never a fatal general form. Rabbits, pigs, goats, uinea pigs, and monkeys were inoculated but it was only in the two latter that generalised uberculosis could be caused by Group II bacillus. The bacilli of this group were obtained from 0 cases ; 8 were from mesenteric glands, 10 from lungs and bronchial glands, 9 from bones and oints, 1 from tuberculous kidney, 1 from tuberculous testis, and the remainder from cervical lands.

Considerable work has been carried out by the Commission with the object of determining hether Group I and Group II are essentially different organisms, or whether one can be transformed nto the other, but for the present this is left an open question. If they are essentially different rganisms then bovine tuberculosis in the human body would be limited to cases such as those hich furnish Group I ; if, however, the organism of one group are capable of being modified nto those of the other group, then any form of tuberculosis in the human subject may arise from bovine source.

The conclusions arrived at were—

" There can be no doubt but that in a certain number of cases the tuberculosis occurring in e human subject, especially in children, is the direct result of the introduction into the human ody of the bacillus of bovine tuberculosis ; and there also can be no doubt that in the majority at ast of these cases the bacillus is introduced through cows' milk. **Cows' milk containing ovine tubercle bacilli is clearly a cause of tuberculosis and of fatal tuberculosis in man.**.

" Of the sixty cases of human tuberculosis investigated by us, fourteen of the viruses elonged to Group I, that is to say contained the bovine bacillus. If, instead of taking all e sixty cases, we confine ourselves to cases of tuberculosis in which the bacilli were pparently introduced into the body by way of the alimentary canal, the proportion of Group becomes very much larger. Of the total sixty cases investigated by us, twenty-eight ossessed clinical histories indicating that in them the bacillus was introduced through the imentary canal. Of these thirteen belonged to Group I. Of the nine cases in which cervical ands were studied by us three, and of the nineteen cases in which the lesions of abdominal berculosis were studied by us, ten belong to Group I.

"These facts indicate that a very large proportion of tuberculosis contracted by ingestion due to tubercle bacilli of bovine source.

" A very considerable amount of disease and loss of life, especially among the young, must e attributed to the consumption of cows' milk containing tubercle bacilli. The presence of bercle bacilli in cows' milk can be detected, though with some difficulty, if the proper means e adopted, and such milk ought never to be used as food There is far less difficulty in cognising clinically that a cow is distinctly suffering from tuberculosis, in which case she ay be yielding tuberculous milk. The milk coming from such a cow ought not to form part human food, and indeed ought not to be used as food at all.

"Our results clearly point to the necessity of measures more stringent than those at esent enforced being taken to prevent the sale or the consumption of such milk."

The whole report is full of interest not only to those engaged in public health work but also to agriculturalists. It is difficult to give a proper conception of the report in a brief summary, especially as so many of the matters dealt with, are of a more or less technical character, but those specially interested will be well repaid by a careful study of the report for themselves.

It is all the more necessary that members of sanitary authorities should have a clear conception of this matter, as there can be little doubt that legislation must follow.

INSPECTION.

The work of sanitary inspection in the various districts is summarised on Table VII.

A systematic house to house inspection is the only satisfactory basis for sanitary work.

FACTORIES AND WORKSHOPS.

Details of the inspection of factories and workshops are given on Table VIII., and summaries of the remarks of the medical officers on this subject will be found in Part II. of the report.

An important circular letter has been received from the Home Office showing how the Home Work Provisions of the Factory Act are very imperfectly carried out throughout the country. The letter, which is accompanied by a Parliamentary Return giving the figures for England, Wales, and Scotland, points out how correct lists of outworkers are of the greatest importance to Local Authorities in supervising the insanitary conditions under which the work is done, and also to the Factory Inspector in enforcing the provisions of the Truck Act and those provisions of the Factory Act, which require particulars of work and wages to be given to out-workers. "These provisions . . . constitute the chief statutory protection of this class of workers against sweating," Local Authorities are urged to make full use of their powers.

Apart from the towns of Shrewsbury and Wellington practically no lists of out-workers have been received. In many districts inquiries have been specially made but no out-workers have been discovered. It is difficult to believe that in towns like Oswestry and Bridgnorth no out-workers are employed, although apparently no lists have been received.

TABLE VIII.

FACTORY AND WORKSHOP ACT, 1901.

SUMMARY FOR 1906.

Urban Districts.	Number of Workshops on Register.	Number of Inspections of Factories, Workshops, Workplaces, and Home-workers' Premises.	Written Notices sent.	Defects from						Defects remedied.	Failure to fix abstract of Act.	Representations from H.M. Inspector.	Number of Underground Bakehouses.	Lists of Outworkers received.	Number of Outworkers in District approximate.	Remarks.
				Want of Cleanliness.	Want of Ventilation.	Overcrowding.	Defective Sanitary Accommodation.	Breach of Sanitary Requirements of Bakehouses.	Other Defects.							
BISHOP'S CASTLE ..	35	80	0	..	..	..	1	..	..	1	0	0	0	0	0	
BRIDGNORTH ..	..	935	0	..	..	..	..	..	..	..	..	..	..	..	..	They have been inspected and found in a satisfactory sanitary condition.
CHURCH STRETTON	22	46	0	..	..	..	..	..	..	..	..	..	0	0	0	
DAWLEY	33	94	16	13	..	..	..	..	..	13	1	0	0	2	2	
ELLESMERE ..	43	43	0	..	..	..	..	2	..	2	..	..	2	0	0	A register is kept and the places have been inspected and the necessary action taken.
LUDLOW	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Workshops and Workplaces are clean and with sufficient air space.
NEWPORT ..	63	8	0	0	0	0	0	0	0	0	0	0	1	1	2	
OAKENGATES ..	59	102	5	3	..	..	1	..	1	5	..	..	..	0	0	
OSWESTRY ..	103	30	6	5	..	..	1	..	..	6	..	2	0	..	..	
SHREWSBURY ..	229	130	18	12	..	..	..	15	6	33	0	..	2	32	70	
WELLINGTON ..	74	170	2	2	..	..	..	..	..	2	..	..	..	4	14	
WEM	58	266	0	0	0	0	0	0	0	..	..	0	..	2	4	
WENLOCK ..	115	97	9	..	..	..	..	5	4	9	2	0	1	0	0	
WHITCHURCH ..	78	168	5	5	..	..	..	..	..	5	..	..	0	0	0	

Rural Districts.	Number of Workshops and Workplaces on Register.	Number of Inspections of Factories, Workshops, Workplaces, and Home-workers' Premises.	Written Notices sent.	Defects from						Defects remedied.	Failure to fix Abstract of Act.	Representations from H.M. Inspector.	Number of Underground Bakehouses.	Lists of Outworkers received.	Number of Outworkers in District approximate.	Remarks.
				Want of Cleanliness.	Want of Ventilation.	Overcrowding.	Defective Sanitary Accommodation.	Breach of Sanitary Requirements of Bakehouses.	Other Defects.							
ATCHAM ..	80	105	8	7	..	..	..	2	6	15	..	..	0	0	0	
BRIDGNORTH ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	The workshops have been visited and are sanitary and properly ventilated.
BURFORD ..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	There are two bakehouses which have been duly inspected.
CHIRBURY ..	0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
CHURCH .. STRETTON ..	23	64	0	..	..	..	..	..	..	..	..	..	0	0	0	
CLEOBURY MORTIMER ..	25	20	..	..	..	..	..	..	..	..	..	..	..	0	0	The Act has little application: the places that come under it are dealt with.
CLUN	73	40	0	4	..	..	..	..	..	4	..	..	0	0	0	
DRAYTON ..	106	54	7	..	..	..	..	1	2	2	..	..	0	0	..	
ELLESMERE ..	..	56	..	..	..	..	..	..	..	..	..	..	..	..	..	The workshops have been inspected and matters requiring attention dealt with.
LUDLOW ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
NEWPORT ..	16	32	0	..	..	..	..	..	..	..	..	..	0	0	0	
OSWESTRY ..	70	110	0	1	1	..	..	..	..	1	..	0	..	..	..	
SHIFNAL ..	57	405	35	20	..	..	..	15	..	35	..	..	..	0	0	
TEME	1	7	0	1	..	..	..	..	..	..	0	0	0	0	0	
WELLINGTON ..	38	38	..	..	..	..	..	..	3	..	..	..	..	..	..	All inspected and found satisfactory.
WEM	23	39	34	6	..	2	..	..	11	19	..	..	..	..	..	
WHITCHURCH .	10	31	0	..	..	..	..	..	..	..	..	..	0	0	0	

SALE OF FOOD AND DRUGS.

Return showing number, description, result of analysis of samples taken under the Food nd Drugs Act in the county during the year 1906, and the subsequent action taken.

ture of Sample.	No. of Samples taken.	Results.		Remarks.
		Genuine.	Adulterated.	
isky	16	14	2	2 convicted.
ndy	1	1	..	
n	4	2	2	1 convicted and 1 dismissed on payment of costs.
.. .. ..	12	8	4	4 convicted.
ter	24	23	1	Case dismissed (7–9 per cent. of Foreign Fat.)
d	17	17	..	
k	45	39	6	3 cautioned, 1 dismissed and 2 convicted.
fee	15	15	..	
pper	23	22	1	Vendor convicted.
meal	12	12	..	
owroot	10	10	..	
stard	9	8	1	Case dismissed.
eese	7	7	..	
ger	12	12	..	
ur	2	2	..	
.. .. ..	7	7	..	
ead	2	2	..	
venne	2	2	..	
ned Tongue ..	1	1	..	
ned Salmon ..	1	1	..	
ned Chicken and Ham	1	..	1	No action taken (56 grains of borax to the pound.)
oked Beef ..	1	1	..	
rloin of Beef ..	2	2	..	
rned Beef ..	11	11	..	
ast Beef	4	4	..	
me Roast Beef ..	1	1	..	
ar's Head ..	2	..	2	No action taken (51 and 10–9 grains of borax to the pound).
	244	224	20	

Fifty-seven samples were taken in the Borough of Shrewsbury and three (milk) were found to be adulterated.

Twenty-four samples (2 adulterated) were taken in the Borough of Wenlock. These are included in the return.

A very considerable number of these samples were taken in order to determine whether preservatives had been added, and if so, in injurious quantities.

On this matter I reported in my report for the third quarter of the year to the following effect:—

A very important circular has been issued by the Local Government Board with regard to preservatives in milk. The Board agree with the recommendation of the Departmental Committee on Preservatives and Colouring Matters in Food, that no preservatives should be allowed in milk, and suggest "that the Council should notify to milk traders by circular or otherwise, that action will be taken under the Sale of Food and Drugs Acts in instances where preservatives are reported in milk."

"Subject to this being done and to exceptional cases of the kind referred to under heading numbered 3 below (refers to milk sold under declaration) the Board consider that when the presence of any added preservative is reported in a sample of milk taken in accordance with the provisions of the Sale of Food and Drugs Acts, the case should in ordinary circumstances be regarded as one for the institution of proceedings under those Acts."

Where the milk is sold under declaration with regard to preservatives, it must be considered whether the article has been rendered injurious to health or the person prejudiced to an extent which would justify proceedings under sec. 3 or sec. 6, notwithstanding the declaration.

The Board are advised that the presence of 1 part of formalin in 40,000, or 40 grains of boric acid per gallon raises a strong presumption that the article is injurious to health.

The Board suggest that analysts should be requested—

(*a*) To record in their quarterly reports the number of milk samples examined for preservatives and the results; also instances of use of preservatives other than formalin and boron compounds.

(*b*) To report on completion of analysis the facts as to the samples of milk which have been found to contain a preservative.

I would suggest that for the present *all* samples of milk should be examined for the common preservatives, and that where present they should be estimated, so that the necessity for further action may be gauged.

I have received a communication from Dr. Buchanan, the Medical Inspector of the Local Government Board, who is supervising the work of Food and Drugs inspection. He suggested that samples of canned and preserved meats should be taken and submitted to the analyst and that special attention should be paid to the use of preservatives. The idea underlying this suggestion was that if the meats had been kept an undue length of time before canning, probably preservatives would have been used to prevent decomposition. Mr. Blunt reports that of 21 samples of tinned meats and fish examined, 17 of which were American, none contained any preservative, and all were in good condition, with one exception, which was somewhat musty and unpleasant. On the other hand three samples of preserved meats (not canned) of English make contained preservatives:—

Boar's Head, in glass vessels, contained 51 grains of borax to the pound.

Boar's Head, in glass vessels, contained 10·9 grains of borax to the pound.

Chicken and Ham Paste contained 56 grains of borax to the pound.

The amount of preservatives in two of these is much in excess of that suggested by the Departmental Committee as the limit for cream, butter, and margarine. Successful prosecutions have been taken, and the convictions upheld on appeal, in which the amount of preservative used has been smaller than in these two cases. Considering the harm that may arise from the extended use of a great variety of preserved foods, unless the use of preservatives is carefully restricted within due limits, I would advise that samples of potted meats, fish, cream, butter, jam, sausages and other like foods be taken regularly, and that proceedings be instituted where preservatives are used in excessive amounts. Where foods can be subjected to sterilisation, as in the case of tinned foods, there should never be any preservative used, and its presence would be presumptive evidence that the food was not fresh when tinned. (*End of extract from Quarterly Report.*)

The limits suggested by the Committee are—

For salicylic acid 1 grain per pint in liquid food, or 1 grain per pound in solid food.

For boric acid ·25% in cream ; ·5% in butter or margerine.

The suggestions with regard to the taking of samples of food for preservatives have been acted upon, but up to the present time none of the samples taken have contained preservatives in excess of the limit suggested by the Departmental Committee. It almost appears as if the suggestion of a limit, whilst restraining the excessive use of preservatives, will actually increase the use of small quantities in food. Many persons engaged in the trades connected with preserving food are actually arguing that the Departmental Committee recommended the use of small quantities of preservatives. *It cannot be too much insisted upon that the use of preservatives, where it is possible to do without them, should be strongly discouraged.*

MEAT INSPECTION.

Dr. Rose in his report on Oakengates deals at some length with this subject. He points out that the matter is a serious one, and that although something can be done, it cannot be dealt with efficiently without fresh legislation. He says "In my examinations I frequently find meat of a very inferior character, but the butchers that carry this nefarious trade on, are evidently experts in the business, for the animals are either slaughtered, or if dead beforehand, dressed, and cut up into small sections, and the diseased portions cut away, in slaughter-houses far outside this area, and the sections evenly divided amongst them and mixed with apparently healthy meat."

In the year 1905 I reported on the meat inspection in Newport Urban District and neighbourhood, and I recommended that a skilled inspector be appointed for the following districts in combination :—Newport Urban and Rural Districts, Wellington Urban and Rural Districts, and Oakengates. The importance of the rural districts joining in the combination lies in the fact that a considerable quantity of meat is dressed in slaughter houses in the rural districts. I also pointed out that if meat inspection is to be of use, it must be made at the place where the animal is slaughtered, as it is impossible, after the meat has been dressed and sent to the market, to institute any inspection worthy of the name. From my investigations I formed the opinion that a considerable amount of suspicious meat was dressed in this neighbourhood and sent to towns both within and outside the county.

Oakengates and Newport Urban Districts were the only districts willing to join for this purpose, so that the suggestion fell through.

There can be no doubt, however, that if inspection is to be carried out efficiently, it must be conducted over considerable areas by skilled inspectors.

There is little or no reference to meat inspection in the reports of the other districts.

MIDWIVES ACT.

Although this Act nominally came into force on April 1st, 1903, it was not until a considerable time later that the Rules of the Central Midwives Board were issued, and it was late in 1904 before the Act was really put into force in this county, so that we have now had almost two and a half years' experience of its working.

As pointed out in last year's report, the number of midwives who have become certified has greatly exceeded the estimate formed. The estimate of the amount of time, that the inspection of midwives in the county would take up, was based upon the idea that about 200 midwives would become certified, whereas there are at the present time 324 on the register. It has consequently not been possible to give the amount of attention to each midwife that one had hoped for, and it has not been possible to inquire systematically into all notifications of medical help deaths, and still-births.

The number of midwives who have notified me, since the beginning of 1907, of their intention to practise is 326, compared with 352 in 1906. Two of these midwives have since died, so that there are now 324 on the register. There are 70 trained midwives practising in the County compared with 72 last year. Twenty of the midwives on the register although practising in the county, live outside its boundaries.

The following figures taken from my report for 1905 are still substantially correct, and give some idea of the general social condition of the midwives and their capacity for work in future years :—

Speaking approximately—
95 of the midwives are between 50 and 60 years of age.
99 of the midwives are between 60 and 70 years of age.
28 of the midwives are 70 years of age and upwards.

One hundred and ninety-two are married, 58 are single, and 96 widowed. Eighty-five of the midwives cannot read, and a much larger number cannot write sufficiently well to keep their registers without help.

In order to form an opinion upon many important points it was found to be necessary to obtain the number of confinements attended by each midwife during 1906. It was possible to do this, with considerable accuracy, as a register of all cases she attends has now to be kept by each midwife according to the rules. The figures however are not quite complete, because they do not include confinements attended by midwives, who have since left the county, or who have died, or of confinements attended by midwives in the workhouses.

The total number of confinements attended by midwives during the year 1906 was 4,401 This number is equal to 73 % of the total births in the county, the remainder having been attended by medical men or by uncertified midwives. The number of cases attended by uncertified midwives is not ascertainable, but Miss Frith is of opinion that in certain districts it is considerable.

In order to form a correct opinion upon various matters connected with the supply and maintenance of midwives, an analysis has been made grouping them according to the numbe of cases they have attended.

Midwives grouped according to number of Confinements they attended in the year 1906.

Number of certified Midwives who have attended	no confinements ...	49
,, ,, ,, ,, ,,	less than 10 confinements ...	143
,, ,, ,, ,, ,,	between 10 and 20 ,, ...	69
,, ,, ,, ,, ,,	,, 20 ,, 30 ,, ...	25
,, ,, ,, ,, ,,	,, 30 ,, 40 ,, ...	15
,, ,, ,, ,, ,,	,, 40 ,, 50 ,, ...	7
,, ,, ,, ,, ,,	,, 50 ,, 60 ,, ...	8
,, ,, ,, ,, ,,	,, 60 ,, 70 ,, ...	6
,, ,, ,, ,, ,,	,, 70 ,, 100 ,, ...	1
,, ,, ,, ,, ,,	over 100 ... ,, ...	4

This analysis shows clearly that only a comparatively small number of midwives are making a living from this work. Unless a midwife is attending at least fifty cases a year she must have some other source of income, and applying this test it will be seen that at the most only about 6% can rely upon midwifery alone.

If the 4,401 confinements were attended by midwives having 50 cases each, only about 80 midwives would be required in the county instead of over 300 as at present. If this number were found to be sufficient it could probably be maintained by the training of about ten to twelve midwives annually.

On the other hand on account of the thinly populated condition of many parts of the county, necessitating the covering of great distances in attending a comparatively small number of cases, considerably more than this number of midwives will be required. With improved methods of locomotion, particularly with the use of a bicycle, a midwife will no doubt be able to cover a larger area than she has been accustomed to do in the past, but it is quite evident that it is only in the towns and in the more thickly populated districts that she can make a living.

The difficult problem therefore seems to be, not in the training of sufficient women, but in maintaining them in those districts where the fees will not provide a livelihood. The solution that presents itself is the formation of local associations for this purpose for every district in the county where there is no satisfactory certified midwife available.

The training of midwives will no doubt be satisfactorily undertaken by the County Council and by the County Federation. In 1906 the County Council trained five midwives and the Federation one, and since the beginning of 1907 the Council have accepted five candidates for training and the Federation have trained one. This number will no doubt have to be considerably increased for the next few years, so as to meet the deficiency due to the fact that all uncertified midwives must cease practising after April 1st, 1910.

It is extremely important that midwives trained at the public expense should work under some capable supervision, and that they should work where they are really needed, or else they will naturally settle where they can make the best living with the least trouble.

The following table shows to some extent, although imperfectly, the distribution of midwives throughout the county :—

MIDWIVES IN SANITARY DISTRICTS.

Rural District	Number of Midwives	Number of Midwives per 10,000 population	Urban District	Number of Midwives	Number of Midwives per 10,000 population
Atcham	28	13	Bishop's Castle ..	3	22
Bridgnorth	12	14	Bridgnorth	2	3
Burford	1	8	Church Stretton ..	3	23
Chirbury	12	34	Dawley	8	10
Church Stretton	9	20	Ellesmere	2	10
Cleobury Mortimer ..	8	12	Ludlow	3	5
Clun..	19	28	Newport	10	31
Drayton	16	14	Oakengates .. .	7	6
Ellesmere	11	14	Oswestry.. .. .	5	5
Ludlow	16	17	Shrewsbury .. .	22	7
Newport	3	5	Wellington .. .	3	4
Oswestry	38	25	Wem	5	22
Shifnal	14	16	Wenlock	13	8
Teme	7	38	Whitchurch .. .	9	17
Wellington	14	12			
Wem	13	15			
Whitchurch	9	47			

The following tabular statement gives the number of visits paid in each quarter of the year by the Inspector of Midwives and the number of notifications of various kinds received :—

	Visits paid.	Notifications of having sent for medical help.	Notifications of still-births	Notifications of death of mother or child with no medical man in attendance.
First Quarter	174	51	25	1
Second Quarter	287	101	32	2
Third Quarter	234	90	25	4
Fourth Quarter	134	83	23	6
Total	829	325	105	13

All these numbers are much larger than in the previous year.

Notifications of sending for Medical Help.—There is reason to think that these still fall far short of the true number. As every midwife must now be aware of her duty in this respect, it should be understood that failure to send in these notices will in future be treated as a serious offence.

Notifications of still-births.—The rule making it compulsory on a midwife to notify any still-birth she may attend is an important one, and although it has not been possible so far as a routine practice to make inquiries into these cases, the possibility of inquiry is a considerable safeguard. In order to obtain an independent return of still-births as a check, the parish clerks and the cemetery authorities have been asked to supply me with particulars of still-born children who are in future buried in their burial grounds. My thanks are due to the clerks and to the clergy for the kind way in which they have responded to the request. The scheme was commenced at the beginning of the year, and up to the end of May no less than 87 notifications of still-births were received.

Notifications of deaths of mother or child with no medical man in attendance.—The notifications that the police have kindly sent me have been of the greatest use in bringing to light cases that the midwives should have reported. In many of these cases they had been seriously at fault in not sending for medical help according to the rules. There is undoubtedly a great laxity upon the part of many midwives in this respect, and this laxity, in my opinion, very considerably increases the infantile mortality. A more serious view of the conduct of midwives in these cases is now taken, and a considerable number have been censured on this account.

Suspensions.—During the year 1906 five midwives were suspended for varying periods, two in order to allow of satisfactory disinfection after puerperal fever, and three for not employing proper safeguards against the spread of infection. Since the commencement of 1907 seven midwives have been suspended to allow of disinfection after puerperal fever and one for not employing proper safeguards against the spread of infection.

Midwives reported for breaches of Rules and censured.—Two midwives were reported in the year 1906 for breaches of the rules (in both cases failure to send for medical help) and were censured by the Local Supervising Authority. Since the commencement of 1907, seven midwives have been reported for various breaches of the rules, and in each instance the Local Supervising Authority has censured the midwife. These offences were of a nature that could not be dealt with by suspension, and as first offences the Supervising Authority did not feel justified, except in one instance, in making a representation to the Central Midwives Board.

Inspection of Midwives.—The number of visits made by the Inspector in the routine inspection of midwives was 829, compared with 642 in the year 1905. This does not include the visits made by me which were mostly for the purpose of special investigations. The number of visits paid would have been even larger had it not been for the greatly increased amount of clerical work.

Miss Frith reports that there is a marked improvement in the practice of midwives, particularly with respect to the wearing of clean cotton dresses, clean aprons, the cleanliness of the houses, and the better preparation of the lying-in room. The rules are much more satisfactorily complied with, in respect of the provision of bags, appliances and disinfectants, the keeping of registers, and the sending of notifications.

If a midwife does not provide herself with a satisfactory disinfectant she is reported for suspension under Rule F. Midwives are instructed as to the proper use of disinfectants, but it is extremely difficult to make sure that the instructions are carried out in practice. It will certainly be necessary in many cases in the future to visit the midwives at the houses they are attending, so as to observe their mode of practice.

Another important matter the Inspector has paid great attention to, is teaching the midwives how to take a temperature, and the significance of temperatures. This has been found almost impossible in the case of the most ignorant of the women, and particularly in the case of those women who, whilst they have no knowledge of the subject, will not confess their ignorance. There is a gradual improvement in this as in other matters, and no doubt in a few years it will be comparatively rare to find a midwife who cannot take and record a temperature. It would however have forwarded matters very much if the Central Midwives Board had in their new rules made it compulsory that midwives should take and record the temperature at each visit.

The inspection of midwives is already an important means of spreading knowledge of the true principles that apply to the feeding and care of infants. This is made a subject of personal instruction by the inspector on her visits, and leaflets specially drawn up for the purpose are given to the midwife for her to leave with and explain to the mothers. There is evidence, that both the midwives and the mothers they attend, are interested in this teaching, and are deriving benefit, but in the majority of cases the methods of hand feeding employed are still radically wrong. It is encouraging however to know that the experience of the inspector points to the fact that in the country districts the majority of children are fed on the breast for a longer or shorter period. It is desirable that one should have some more exact facts upon this important subject, and the possibility of obtaining them will be considered. In Shrewsbury where the majority of the births are visited by Health Visitors, exact information will be obtainable, but otherwise there is no agency available except through the inspection of midwives, and this must necessarily be imperfect.

Lectures for Midwives in practice.—It has been decided that courses of lectures shall be given in various centres for midwives in practice, the centres chosen being those convenient to the largest number, and for this purpose the Education Committee has made a grant for the year of a sum not to exceed £20. Although there must be difficulties connected with the attendance of midwives in practice, particularly those who are busy and who live some distance from the place where the lectures are given, it is said that many are looking forward to the lectures with great interest.

The New Rules of the Central Midwives Board were issued in May of this year, and copies of that part relating to the practice of midwives are being printed along with a list of midwives for distribution amongst medical men, coroners, and district councils, and a copy will also be sent to each midwife.

The alterations are very considerable not only by the introduction of new matter, and to some extent by the elimination of old, but also by re-arrangement which has undoubtedly had the effect of making them much clearer.

Section A, regulating the proceedings of the Board and Section B, regulating the Issue of Certificates and the Conditions of Admission to the Roll of Midwives are not of any practical interest to the Local Supervising Authority.

Section C, regulating the course of training, etc., is not altered in any important particular, except that the principles of personal hygiene and disinfection of the person, clothing and appliances are introduced as subjects to be taught. The minimum term of three months for training remains unaltered.

Section D is entirely new and is concerned with the removal of a name from the roll and the restoration of a name so removed.

The alterations of importance to the Local Supervising Authority are those made to Sec. E (Regulating, Supervising, and Restricting within due limits the Practice of Midwives).

There has been considerable re-arrangement of these rules with the general result that they e much easier to understand. " The conditions in which medical help must be sent for " are operly headed, and the conditions in which notification must be sent to the Local Supervising uthority are grouped together. When dealing with illiterate midwives these matters are of nsiderable importance.

Although implied in the old rules, it is now specifically mentioned that the midwife shall take th her a bag or basket furnished with a washable lining. The carrying of certain appliances untrained midwives is now left to the discretion of the Local Supervising Authority to insist on or not, and it will be necessary to come to some general decision.

According to the new rules it is necessary for a midwife to disinfect after attendance on any ectious illness to the satisfaction of the *Local Supervising Authority*, instead of the *Local nitary Authority*. This brings the rules into line with what has really been the practice in this unty.

The absolute prohibition with regard to a midwife laying out the dead is withdrawn, and e is allowed to do so under certain conditions and at the discretion of the Local Supervising uthority. After laying out a body she must undergo adequate cleansing and disinfection. will be necessary for the Local Supervising Authority to decide whether they will allow a dwife under any conditions to lay out the dead. It seems very desirable, if this should be owed, that the midwife should send immediate notification in order that adequate cleansing d disinfection and observance of the other conditions laid down, may be insisted upon.

The responsibility of a midwife in sending for medical help has been somewhat altered. ter explaining that the case is one for a medical man, and handing to the husband a form operly filled up, a copy of which must be sent to the Local Supervising Authority, the midwife ll not incur any liability by remaining on duty. The form of the notice is altered. It is w sent on behalf of the patient and the midwife simply advises.

Notifications of deaths and of still-births have now to be sent in on official forms.

The conditions in which medical help must be sent for, have been considerably altered in rm, but with one or two exceptions, the alterations will make no difference in practice.

There are two important notes added, but as they are not incorporated in the rules they are t binding. They are as follows :—

> " When engaged to attend a labour, the midwife should take an opportunity of visiting the patient in her own house to advise as to personal and general arrangements for the confinement."

> " It is highly desirable that the midwife should see that every birth occurring in her practice is notified to the Local Supervising Authority within 48 hours, together with the name and address of the parent."

This information would be very helpful to Local Sanitary Authorities in their efforts to event excessive mortality in children.

These alterations must on the whole be looked upon as improvements and it is gratifying observe that several of the objections the Salop Local Supervising Authority had to the old es have been removed.

From the point of view of the efficient working of the act it is, however, greatly to be gretted that the Central Midwives Board have not adopted two very important suggestions at were made to them from several quarters—

(1)—That the midwife should take and record the temperature of the patient at each visit.

(2)—That the midwife should notify to the Local Supervising Authority when she is in attendance upon a case of infectious disease. At the present time we are in the absurd position of having to insist upon disinfection after attendance upon infectious disease, and we have no means of knowing when the midwife has been in such attendance.

RAINFALL.

I am able to publish figures for the county through the kindness of the observers, who at considerable trouble to themselves have furnished me with full particulars.

STATIONS.		RAIN GAUGE.				DEPTH OF RAIN.		DAYS ON WHIC .01 OR MORE RAI FELL.	
		Diameter	Height above ground.		Height above sea level.	1905	1906	1905	1906
		inches.	ft.	in.	feet.	inches.	inches.		
LUDLOW	(The Sheet)	5	1	0	370	26·53	27·20	181	184
,,	(Ashford Hall)	5	0	5	315	—	29·76	—	182
BROMFIELD	(Oakley Park)	5	1	0	300	26·11	25·90	207	203
,,	(Vicarage)	5	1	0	300	26·64	24·79	161	173
CULMINGTON	(The Manor)	—	—		536	—	25·36	—	210
CLUNBURY	(Vicarage)	5	1	0	497	26·44	25·61	146	168
BISHOP'S CASTLE	(Vicarage)	—	—		596	—	29·65	—	203
,,	(Totterton)	5	0	7	700	26·53	28·61	—	208
,,	(Castle Street)	5	2	0	720	24·0	26·88	185	191
,,	(More Rectory)	6	1	0	600	23·46	27·34	—	—
BRIDGNORTH	(Coton Hall)	12	1	6	460	23·06	23·42	156	146
,,	(Hookfield House)	5	1	0	273	23·44	24·73	199	195
,,	(Cantreyn Cottage)	6½	4	6	320	21·07	19·08	139	147
BROSELEY	(Willey Park)	5	1	0	502	25·77	26·67	169	193
PREEN MANOR		5	1	0	700	—	23·83	—	174
CRAVEN ARMS	(Stokesay Vicarage)	5	1	0	371	25·83	23·60	—	190
WOOLSTASTON	(The Rectory)	5	1	0	800	26·16	29·22	184	199
MINSTERLEY	(Hampton Hall)	—	1	0	630	23·65	28·75	—	—
WESTBURY	(Wallop)	8	1	6	700	29·85	32·27	180	193
SHREWSBURY	(Abbey House)	8	1	3	171	18·5	20·99	166	194
,,	(Corporation Gauge)	8	1	3	174	21·02	22·78	135	157
,,	(Highfield)	5	4	6	250	19·52	21·99	163	185
,,	(Fitz Rectory)	5	1	2	238	22·3	23·72	203	222
,,	(Fitz Manor)	—	—		—	—	22·77	—	193
,,	(Roden)	—	—		208	—	23·09	—	167
SHIFNAL	(Hatton Grange)	5	4	4	251	21·34	27·65	—	209
,,	(Neachley)	6	1	6	280	23·21	28·13	181	180
,,	(Haughton Hall)	5	3	0	355	—	28·29	—	192
NEWPORT	(Aston Hall)	5	0	9	280	21·74	28·48	178	186
,,	(Agricultural College)	5	1	0	210	19·82	25·53	177	190
,,	(Edgmond)	8	1	0	261	21·46	27·64	180	196
MARKET DRAYTON	(Buntingsdale)	8	3	0	276	25·48	30·64	—	—
ELLESMERE	(The Grange)	5	0	10	—	26·06	28·88	—	210
OSWESTRY	(The Mount Reservoir)	5	1	0	698	28·27	34·46	180	200

Part II.

Abstracts, etc., of Annual Reports of the Medical Officers of Health for the Various Districts.

For the first time the reports for the districts forming the Atcham Combined District have ith the exception of Church Stretton Urban District) been issued as one report. The districts mprised are Atcham, Church Stretton, Clun, Newport and Whitchurch Rural Districts; awley, Newport, and Whitchurch Urban Districts, and the Boroughs of Bishop's Castle and enlock.

Consideration of each individual district is preceded by a very valuable summary of the wers of District Councils. Dr. Gepp also deals with the question of phthisis and says "Public tention is being directed throughout the country to the great loss of life, health, and wealth, used by this disease, and to the means, which the growth of knowledge has shown to be acticable, of controlling and preventing the spread of the disease, and of curing it in its early ges.

"It is particularly desirable that the District Councils should consider their position with gard to this disease at the present time, as it is in their power, especially, to take preventive easures, and public support may be looked for from the stimulated interest in the question now oused in the county."

After quoting from a special report by the County Medical Officer, Dr. Gepp says—"The eventive measures taken by Sanitary Authorities have hitherto been directed against the mmon infectious diseases, several of which are made notifiable by law. What is now desired that a form of notification should be adopted in the case of phthisis also, but it cannot be o clearly laid down at the outset that notification will be useless unless a Council is prepared follow up the information gained by active preventive measures, and that these measures, to efficient, entail an expenditure of time, trouble, and money exceeding considerably what s been usual in the case of other infectious diseases.

"There is nothing impracticable in the measures recommended, but the Councils, before opting notification, should consider how they may arrange to provide efficient measures to low after notification."

ATCHAM (Rural).

Medical Officer of Health ..	..	M. GEPP, L.R.C.P.E., D.P.H.
Area in Acres	.. .. ..	125,207
Population	*at* 1901 *Census*	20,895
Number of inhabited houses	,, ...	4,329
Number of persons per house	,, ...	4.8

neral Character of the District.

> "The District is a very large one, some 22 miles in length by some 14 in extreme breadth, "its area being 125,207 acres. The River Severn runs through it from north-west to south-"east dividing it into two parts, of which the Northern and smaller part is continuous with "the Midland plain, on the new Red Sandstone. The general elevation of this part is from "200 to 300 feet O.D. The Southern and larger part is more elevated, rising gradually from "the river, southward and westward, from 200 to some 600 feet O.D., with considerably

"greater elevations on the hillsides, forming the western and southern borders. The
"Geological formation of this part is broken and diverse. The hills are the outliers of the
"Cambrian and Silurian ranges of Wales and Shropshire, and these formations project into
"the District. There are also detached but considerable exposures of the coal measures, and
"of the Permian Red Sandstone. There is in both parts a variable, but generally considerable,
"thickness of drift overlying the strata. The drainage is on both sides to the Severn, by
"numerous small tributary streams. The Borough and County town of Shrewsbury lies
"nearly in the centre of the District."

"The District is entirely rural in character, for the most part fertile and highly cultivated,
"and supporting a comparatively large agricultural population, distributed in numerous
"important villages, in smaller hamlets, and largely also in scattered isolated dwelling
"houses. The density of population is equal to about 108 persons to the square mile. A few
"coal mines are worked around Hanwood, but many parts of the small coalfields are
"abandoned. Extensive quarries of Quartzite stone, for road metal, are worked at
"Pontesbury."

Statistics.

The natural increase of population during the year was 88. The population is estimated at the middle of 1906 to be 20,810, and corrected for public institutions 19,840.

Period.	Death-rates per 1,000 population from									Infant Death-rate per 1000 Births.	Birth rate
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	13·5	·55	·55	1·11	·25	1·31	·96	1·51	·91	67	24·8
Averages for years 1896-1905.	14·7	·72	..	..	..	..	..	..	..	89	24·5

The zymotic death-rate was due to 4 deaths from whooping cough, 2 from diphtheria, and 5 from diarrhœa.

Infectious Diseases.—Scarlet Fever.—There were 81 cases of a mild type with one death, occurring mostly in small groups and associated with school attendance. Four schools were closed and caution bills were distributed at Minsterley and Alberbury. The cases of *Diphtheria,* 19 in number, were apparently separate outbreaks. *Enteric Fever.*—Three cases were notified, one being imported. *Puerperal Fever.*—Three cases were notified, one being fatal. *Whooping Cough* was prevalent at Bomere Heath, Sheinton, Meole Brace, and Asterley, and the schools were closed.

School Closure.—Nine schools were closed on account of infectious disease.

Hospital Isolation.—There is no hospital for infectious diseases. There is an arrangement for the prompt dispatch of a tent in case of a small-pox outbreak, and a Berthon hut and small tent were bought to deal with the small-pox outbreak in 1904. It is advised that the district should acquire a site and erect a cottage as a nucleus ; or better still acquire three cottages suitably placed and kept in occupation and immediate readiness for outbreaks of small-pox or serious outbreaks of ordinary infectious disease.

Disinfection.—Rooms, etc., are now sprayed with formalin or cyllin by the Council's officers. he Council possesses a "Thresh Emergency Steam Disinfector," and its extended use for disin- -cting bedding, etc., is recommended.

Water Supply.—Public systems of supply are maintained by the Council at Meole Brace and ontesbury. There are private supplies laid on from springs at Acton Burnell, Albrighton, uildwas, Condover, Cound, Cressage, Eaton Constantine, Frodesley, Harley, Pitchford, Ruckley, ushton, Uppington, and Upton Magna. Elsewhere the supply is from pumps and wells, a umber of which are maintained by the Council as public supplies. Dr. Gepp again points out hat the powers under the Public Health (Water) Act, 1878, might be utilised to improve private ell supplies, and that no certificate should be given for a new house until the site and structure the well have been found to be satisfactory.

Meole Brace.—A duplicate 4″ main has been laid at Hook-a-gate, where a 3″ main only xisted. This has resulted in a better supply.

Pontesbury.—An extension of the $1\frac{1}{4}''$ main was made to supply several houses.

Bayston Hill.—Plans have been adopted for a supply by gravitation from a well on Lyth Hill.

he Sanitary Surveyor is engaged in a systematic effort to improve the water supplies of the istrict. Public pumps and wells have been repaired and improved at Bomere Heath, Wheat all, Berrington and Dorrington. The public well at Longden and Castle Pulverbatch have been econstructed. At Ryton one public pump well has been improved and the other is receiving ttention. At Longden and Longden Common much good work is being done, necessitating -drainage, removal of pigsties, cementing and puddling of wells. At Hanwood a row of 26 ouses has been provided with a new well. A deep well has been sunk at Rose Hill for 8 cottages. t Cross Hill the overflow from a pump supply is conveyed to a tank for 4 cottages. Two farms nd 5 cottages at Betton have been supplied from the Betton Pool by a wind engine. At heinton 8 cottages have been supplied by the owner from Whitwell springs.

Sewerage, Drainage, and Excrement Disposal.—Meole, Pontesbury, Minsterley, Dorrington, sterley and Bayston Hill are sewered.

At Meole the outfall tanks have been put in good order and fresh land is being prepared for e sewage. At Minsterley a length of sewer has been laid for 14 houses formerly draining into ditch. At Pontesbury the surveyor has been instructed to prepare a scheme of sewage isposal. At Bayston Hill plans have been adopted for the improvement of the outfall.

With the exception of Meole Brace the general system of excrement disposal is by earth osets and privies. Efforts are being made to improve these, and during the year, 7 were con- erted to water-closets and 64 to pail closets.

Housing—Adequate in amount, and on the whole fair. There are, however, a large number old houses becoming worn out and needing frequent inspection.

Permissive Powers.—The Public Health Acts (Amendment) Act, 1890, and the Infectious isease (Prevention) Act, 1890, are not adopted. By-laws applying to the whole district have en made for private scavenging. By-laws have been made for Nuisances, New Streets and uildings, and Slaughter-houses applying to Bicton, Church Pulverbatch, Condover, Great anwood, Meole Brace, Pontesbury, Preston Gobalds, Cressage, Minsterley, St. Alkmond, and Vestbury.

Slaughter-houses.—It has been decided, subject to official sanction, to extend the slaughter- ouse by-laws to the following parishes:—Acton Burnell, Alberbury-with-Cardiston, Astley, attlefield, Berrington, Fitz, Ford, Harley, Leighton, and Wollaston.

Bakehouses—19 periodically inspected.

Dairies, Cowsheds, and Milkshops—Model regulations in force. There are 84 cowkeepers, etc., on the register. Much attention is given to the condition of the cowsheds.

BISHOP'S CASTLE (Urban).

Medical Officer of Health .. .. M. GEPP, L.R.C.P.E., D.P.H.

Area in Acres 1,867

Population at 1901 *Census* 1,378

Number of inhabited houses „ 354

Number of persons per house „ .. .. .. 3·9

Physical Features and General Character.

"The Borough forms an area some three miles in length by a mean breadth of about a "mile, lying within the south-west border of Shropshire, touching the Montgomeryshire "border at one end, but otherwise surrounded by the Clun Rural District. It has the small "town of Bishop's Castle about the centre. The elevation varies from about 500 feet O.D. in "the valley at the south-east end, to 1000 feet or more in the hill country forming the north-"west end. The town lies on a hillside rising out of the valley, the main street rising steeply "from about 600 feet to 700 feet O.D., and the houses are placed on either side of the street "and about the crest of the hill above it. The subsoil is the Wenlock and Ludlow beds of "upper Silurian age. The natural drainage is from north and west to south and east by "small streams, the district lying upon the drainage system of the river Teme. In the town "some small streamlets have been culverted about the foot of the hill, and are practically "sewers. The town is a market town and Borough of great age, and the area outside is very "sparsely populated."

Statistics.

The natural increase during the year was 4. The population at the middle of 1906 is estimated at 1,330, and corrected for public institutions, 1,310.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	21·4	·0	·76	3·05	·0	1·52	·0	2·29	·0	31	24·4
Averages for years 1896-1905	18·2	·73	..	..	..	..	..	..	..	86	25·6

Infectious Diseases.—One case of scarlet fever, one of diphtheria, and two of erysipelas were notified. Whooping cough and measles were prevalent at the beginning of the year.

Isolation Accommodation.—There is no hospital, but the right to use an unoccupied cottage or small-pox is secured.

Water Supply.—There is a public supply laid on to the houses. It is upland surface water, rom uncultivated land, stored in a reservoir of 500,000 gallons capacity at an elevation of 1,200 eet O.D. The water is piped to a small service reservoir (85,000 gallons), at an elevation of 810 eet, and is filtered through two sand and gravel filters. The reservoir leaks, and in dry time it s not used, water being piped direct from the streams. In order to avoid loss of head the filters vere not used during the dry season, On account of shortness it was found necessary to cut ff the service from different sections of the town at various hours of the day. A scheme for btaining water from a stream below the level of the reservoir is under consideration.

Sewerage and Drainage.—The centre of the town and a considerable part of the main treet below is sewered on modern lines. Some of the other parts are drained by old stone ewers. Plans and arrangements with regard to land for the sewage disposal scheme have now een agreed upon.

Excrement Disposal.—There are a good many houses with water closets, but old vault privies re in the majority. Many of these are defective, and the sewerage scheme is necessary to allow f their conversion.

Scavenging is done by householders, a tip being provided.

Housing.—There has been a good deal of improvement in recent years, but much of the old roperty requires constant attention.

Permissive Powers.—The Infectious Disease (Prevention) Act, 1890, and the Public Health Acts (Amendment) Act, 1890, part III, are adopted; also by-laws with respect to uisances, cleansing of footways, removal of house refuse, etc., slaughter-houses, common odging-houses, and new streets and buildings.

Dairies, Cowsheds, and Milkshops.—Regulations are in force; 6 cowkeepers are on the egister.

Slaughter-houses—4 on the register.

BRIDGNORTH (Urban).

Medical Officer of Health .. .. J. C. PADWICK, M.R.C.S., L.R.C.P.

Area in Acres ..	.. ..	3,018
Population	*at* 1901 *Census*	6,052
Number of inhabited houses	,, ...	1,300
Number of Persons per house	,, ...	4.6

tistics.

The natural increase of the population during the year was 28. The population at the middle f 1906 is estimated at 6,060.

Period.	All Causes.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth rate
		Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	15·5	·82	·0	1·48	·16	·82	·66	1·98	1·81	91	21·
Averages for years 1896-1905	16·7	..	..	..	..	..	..	..	..		21·

Infectious Diseases.—Seven cases of diphtheria, 3 of scarlet fever, 3 of enteric fever, and 1 of puerperal fever were notified, and 6 of the cases were removed to the isolation hospital. The cases of diphtheria seem to have had no connection with one another, with the exception of two cases in Foundry Yard, which is reported upon as being in an insanitary condition.

Water Supply.—The drinking water from Oldbury wells has been plentiful, and is of excellent quality. Increased filtration of the river water and the adoption of mechanical filters is under consideration.

Milk Supply.—The dairies and cowsheds have been visited and found satisfactory. Regulations have been adopted.

The *factories, workshops, bakehouses* and *slaughter-houses* have been inspected and found in a satisfactory sanitary condition; some of the slaughter-houses are in close proximity to dwelling-houses, and however clean, must be a nuisance.

There is one underground bakehouse, and a certificate has been granted.

BRIDGNORTH (Rural).

Medical Officer of Health .. .. J. C. PADWICK, M.R.C.S., L.R.C.P.

Area in Acres		70,521
Population	*at* 1901 *Census*	8,57
Number of inhabited houses	,, ...	1,88
Number of persons per house	,, ...	4.

Statistics.

The natural increase of the population during the year was 87.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	14·3	·70	·0	1·04	·0	1·62	·70	1·51	·93	71	24·3
Averages for years 1898-1905	13·3	..	..	..	..	..	..	..	..	..	26·0

Infectious Disease.—Twenty-three cases of scarlet fever, 1 of typhoid fever, and 5 of diphtheria were notified. Two of the cases of diphtheria occurred on Chelmarsh Common, an area very inefficiently drained. Ten schools were closed for varying periods, eight on account of whooping cough, one for measles, and one for diphtheria.

Water Supply was short in the various parts of the district in the early part of the year. Ten wells have been cleaned, deepened and improved.

Dairies and Cowsheds have been inspected and found satisfactory. There are 17 cowkeepers on the register.

The Workshops and Schools have been inspected and are sanitary and properly ventilated.

BURFORD (Rural).

Medical Officer of Health		A. E. WHITE, M.B.
Area in Acres		7,798
Population	*at* 1901 *Census*	1,233
Number of inhabited houses	,, ...	263
Number of persons per house	,, ...	4.7

General Character.

> "The District is the smallest rural district in Shropshire, both as regards area and population.
> " . . . . . . It lies on the southern slope of the Clee Hill. The houses are thinly scattered and
> " in no part does the district approach an urban character."

Statistics.

The natural increase of population during the year was 11.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.		
1906	12·1	·6	·81	·81	·0	·0	·0	·0	·0	0	23·5
1905.	12·9	..	..	..	..	..	..	..	..	..	26·7

Infectious Diseases.—Eight cases of scarlet fever and 1 of diphtheria were notified. The Greet school was closed on account of two cases of scarlet fever and the prevalence of whooping cough.

House Accommodation—in a fair sanitary condition.

Drainage and Sewerage are matters entirely for the individual.

Water Supply—from wells and pumps, on the whole fairly satisfactory. Action has been required in several instances where they were liable to surface pollution. Some of the supplies are too inaccessible

Factories and Workshops.—The act has little application. There are two bakehouses and these have been duly inspected.

Dairies and Cowsheds.—Some defects were found and these have been remedied.

CHIRBURY (Rural).

Medical Officer of Health .. .. J. R. Woods, B.A., M.R.C.S., L.R.C.P.

Area in Acres ..		27,045
Population	*at* 1901 *Census*	3,539
Number of inhabited houses	,,	812
Number of persons per house	,,	4·3

Statistics.

The natural increase of the population during the year was 28.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.		
1906	11·5	·28	·00	1·41	.00	1·13	·28	2·54	·84	92	18·3
..	..	..	..	..	..	..	..	..	..	..	..

" The death-rate from pulmonary tuberculosis seems to me to be high, especially for an essentially rural district where the majority of persons are engaged in out-door occupations." Dr. Woods is inclined to think that working in the lead mines, in an unsatisfactory atmosphere with regard to ventilation, dust and cleanliness, is an important factor in the phthisis mortality. He hopes to present a special report on this matter.

Infantile Mortality.—The opinion is expressed that three-quarters of the deaths were due to injudicious feeding and management. The issue of pamphlets on this subject is recommended. The difficulty of obtaining milk is also mentioned.

Infectious Disease.—Six cases of scarlet fever, 2 of erysipelas, and 1 of diphtheria were notified. The cases of scarlet fever occurred in two houses. There were small outbreaks of measles during the year, and Middleton school was closed. Phthisis is voluntarily notifiable, and it is advised that pamphlets be issued.

Houses.—" Many houses present grave defects in the way of sanitation." There are many cases in which liquid from stables, etc., runs dangerously near shallow wells.

Workshops, Factories, and Slaughter-houses.—The Medical Officer of Health has had no opportunity of inspecting these premises.

Water Supply.—WORTHEN—derived from wells, the supply being good and sufficient. BROCKTON—improved, but brook still used for drinking purposes and one surface well is unfit for use, being exposed to contamination. WOTHERTON, SNAILBEACH, BROMLOW—There is a satisfactory supply in these districts. The prevalence of goitre is attributed to the hardness of the water.

Disinfection—In the absence of a high pressure disinfector, boiling bed linen and exposing mattresses, etc., to the sunlight is recommended,

CHURCH STRETTON (Urban).

Medical Officer of Health		M. GEPP, L.R.C.P.E., D.P.H.
Area in Acres		982
Population	*at* 1901 *Census*	816
Number of inhabited houses	,,	147
Number of persons per house	,,	5·5

Physical Features and General Character of the District.

"The District comprises the small ancient town of Church Stretton, lying in an open "valley running nearly north and south, 600 feet above sea level, together with the lower "slopes of the bold hills which form the sides of this valley. The area is 982 acres. The "sub-soil of the valley is glacial drift, generally of dry and well-drained gravel, the hillsides "to the west being of hard Longmyndian rock strata, of Pre-Cambrian age, those to the "east being also of hard rock, of Ordovician age. The town lies on a watershed, "the natural drainage of the valley being on the north towards the Severn, and on the south "towards the Teme, the fall being gentle in either direction. The situation is one of great "natural beauty and healthiness, and in consequence the number of residents and visitors "has for some years been increasing. The Urban District was constituted in 1899.

"The area of development and of new building is being rapidly extended, and the "character of the place is becoming more and more that of a modern residential district, and "a health and holiday resort of good class, for which its open elevated situation and beauty "of surroundings well fit it.

"Climate, soil, aspect, and natural drainage are favourable to a high standard of health "such as it certainly enjoys."

Statistics.

The natural increase of the population during the year was 11. The population at the middle of 1906 is estimated at 1,311, and corrected for public institutions, 1,250.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.		
1906	7·2	·80	·0	·0	·0	·0	·0	·80	·0	50	16·0
Averages for years 1900-1905	15·8	..	..	..	..	..	..	..	..	..	20·3

The zymotic death rate was due to one death from whooping cough.

Infectious Disease.—One case of diphtheria only was notified—possibly an imported case. Whooping cough was prevalent in February, and the elementary school was closed.

Isolation Accommodation.—Dr. Gepp repeats his advice that notwithstanding the past reedom from disease, some provision should be made, particularly considering the fact that he district is a holiday and health resort. He advises that a site should be obtained, fenced and rained, and a cottage built.

Disinfection.—The Council provides a sprayer and disinfectants for use by the Sanitary nspector.

Water Supply—an ample supply of soft upland surface water. Filtration of the Town Brook alley water is recommended.

Sewerage and Drainage.—The completion of the sewerage scheme has already proved to e of great benefit to the district. The number of houses connected to the sewers during the year as 101. The sewers are ventilated by eleven tall shaft ventilators, the manhole covers being enerally closed in the streets and left open in fields and open spaces. A good deal remains to e done in improving the drainage of old property.

Excrement Disposal.—There are 396 water closets, 47 privies, and 6 earth closets. The privies hould be abolished where they are a nuisance ; 8 were converted to water closets during the ear.

House Refuse is removed regularly by a system of collection arranged by the Council.

House Accommodation.—Mostly villa residences. A few cottages in the centre of the town re old and worn out. A recent survey in the "empty season" gave 4·8 inmates per house.

Air space about houses is sufficient.

Erection of New Houses.—Plans were passed for 12 houses during the year.

Permissive Powers.—The Public Health Acts (Amendment) Act, 1890, and the Infectious isease (Prevention) Act, 1890, are not in force. By-laws are in force with regard to slaughterouses, new streets and buildings, and regulations for dairies, etc.

Slaughter-houses.—There are two—regularly inspected.

Dairies and Cowsheds.—There are three cowkeepers in the district. Two of the existing owsheds are small and defective. The regulations should be enforced. Most of the milk omes from outside the district ; these milksellers should be registered.

Bakehouses 5 ; the older ones have been improved.

Sanitary Inspection.—A house to house survey has been made and has been found of much alue.

CHURCH STRETTON (Rural).

Medical Officer of Health .. .. M. GEPP, L.R.C.P.E., D.P.H.

Area in Acres		45,103
Population	*at* 1901 *Census*	4,479
Number of inhabited houses	,, ...	1,005
Number of persons per house	,, ...	4·4

hysical Features and General Character.

> "The District is one of hills and dales highest across the centre from west to east, "forming the watershed between the Severn and Teme river systems, and sloping gently "to north and south. The natural drainage is by various small streams rising in the uplands, "and affording good natural drainage towards the Severn on the north, or the Teme on the south

"side of the watershed. Three parallel ranges of hills run through the District from south-west to north-east, the 'Longmynd' range, of Archæan age, along the western side; the steep escarpment of 'Wenlock Edge' of Silurian age along the eastern border; while between lies a tract of Ordovician age through which the Caradoc and Hope Bowdler range of hills rise. The elevation varies from 1,700 feet at the summit of the Longmynd moorland, to some 400 feet at the northern and southern limits of the District. The hillsides are largely cultivated, but in the higher parts are uninhabited moorland. Between the ranges are fertile valleys with several villages and many isolated farms and cottages.

"The District is entirely rural and agricultural. In the centre lies the small Urban District of Church Stretton. There is an unimportant exposure of coal measures at the north end of the District. These measures are not now worked."

Statistics.

The natural increase of the population during the year was 111. The population at the middle of 1906 is estimated at 4,420, and corrected for public institutions, 4,480.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.		
1906	16·3	1·11	·89	·44	·0	1·56	·89	1·56	·67	108	24·8
Averages for years 1897-1905	15.5	·50	..	..	..	..	..	..	..	88	22.6

The zymotic death-rate was due to 4 deaths from whooping cough and 1 from enteric fever.

Infectious Diseases.—Scarlet fever—6 cases, 5 of which were in two cottages at Picklescott. Smethcote school was closed in consequence. There were also 1 case of diphtheria, 1 of enteric fever, and 2 of erysipelas. Whooping cough was prevalent, necessitating the closure of Hope Bowdler and Acton Scott schools. Cardington school was closed on account of measles.

Hospital Isolation—none.

Disinfection.—Rooms are sprayed by the sanitary inspector.

Water Supply.—There are no public supplies but there are private combined supplies at Leebotwood, Wistanstow, Woolstaston, and Woolstone.

All Stretton and Little Stretton are supplied by small reservoirs formed by damming the streams. The Little Stretton supply is now in the hands of the Church Stretton Water Company. It is advisable that the Church Stretton supply should be laid on to both villages.

The rest of the district is supplied by springs, dipwells and pumps. At Picklescott the advantage of piping water from " The Spout " is again pointed out. At Bushmoor and the Corner, water is very scanty.

Drainage and Excrement Disposal.—Combined drains discharging on to lands or into streams exist in Wistanstow, All Stretton, Little Stretton, and Cardington.

All Stretton (houses 48, population about 258.) Some 19 houses drain direct to the brook by hort lengths of drain. Eight other houses (including 1 farm, 1 public-house, 1 common lodging-ouse, and 5 cottages), are connected to a road drain, and discharge in a trench on grass land. Three private residences have cesspits. Sixteen cottages discharge on gardens or fields by short eparate drains. There remain 2 houses (occupants 66) one being a private asylum, with several ater-closets, which are drained direct to the brook by a combined drain, causing serious ollution of the stream and offensive accumulation. The Council is endeavouring to secure a iversion of the drain and more satisfactory treatment of the sewage.

Excrement disposal is mostly by privies of old type and construction.

Housing.—Speaking generally the houses are old and often too small ; there are many partially orn out and needing periodical inspection.

Permissive Powers.—Infectious Disease (Prevention) Act, 1890, and Public Health Acts Amendment) Act, 1890, are not in force. There are by-laws for common lodging-houses.

Dairies, Cowsheds, and Milkshops.—The adoption of regulations has been recommended ut the Council have decided that they were not necessary.

There are 16 dairies and cowsheds on the register, and they are visited quarterly.

CLEOBURY MORTIMER (Rural).

Medical Officer of Health .. .. A. E. WHITE, M.B.

Area in Acres ..	.. ..	44,338
Population	*at* 1901 *Census*	6,720
Number of inhabited houses	,, ...	1,292
Number of persons per house	,, ...	5.2

eneral Character of the District.

"The population is very thinly scattered over the District, only the small town of "Cleobury really approaching an urban character, though Highley, a mining village in the north, "is rapidly approaching that condition. The District is thus strictly rural and almost "entirely agricultural. The workhouse is at Cleobury. Beyond a few coal pits, there are "no manufactories, etc., in the District.

"The Infectious Disease (Prevention) Act and parts of the 1890 Amendment Public "Health Act are in force, also By-laws relating to New Buildings, Slaughter Houses, and "Nuisances."

tatistics.

The natural increase of population during the year was 104. The population at the middle f 1906 is estimated at 6,450

eriod.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bron-chitis.	Pneu-monia.	Heart Diseases	Cancer		
1906	13·4	·93	·31	·46	·31	·93	1·24	2·79	·46	73	29·6
erages years 3—1905	14·2	..	..	..	..	..	..	..	..	..	28·8

The zymotic death rate was due to 3 deaths from measles, 1 from whooping cough, 1 from diphtheria, and 1 from diarrhœa.

Infectious Disease.—Seven cases of diphtheria, 5 of scarlet fever, 4 of erysipelas, and 1 of puerperal fever were notified. In no case did scarlet fever spread beyond the house. Three cases of diphtheria occurred in a house with defective drains.

Whooping cough was prevalent in various parts, and Neen Sollars school was closed. Highley school was closed on account of measles.

House Accommodation.—At Highley the houses are new and in good condition; in other parts they are improving.

Drainage and Sewerage.—In Cleobury any treatment of the sewage would be somewhat difficult Earth closets are recommended for new and, where possible, old houses.

At Highley there has been some improvement of the scavenging, but more prompt removal of the refuse after the ashpits are emptied is recommended. In other parts these matters are for the individual, and are generally attended to efficiently

Water Supply.—At Cleobury the supply is satisfactory, but analysis is recommended. At Highley the supply is plentiful and good. In the Stottesdon district some houses are in want of a good supply.

Factories and Workshops—Little application—the places are dealt with.

Cow sheds and Dairies—Seven on register. They have been visited and found satisfactory

Slaughter-houses have had attention and two have been improved.

CLUN (Rural).

Medical Officer of Health .. .. M. Gepp, L.R.C.P.E., D.P.H.

Area in Acres		82,206
Population	at 1901 *Census*	6,824
Number of inhabited houses	,,	1,487
Number of persons per house	,,	4.6

Physical Features and General Character.

"The Rural District is essentially a hill country, lying in the south-west of the County, and on the borders of Wales. Much of the District lies at an elevation of 1,000 feet and upwards, especially in the northern and western parts. The centre and south-eastern part consists of open valleys, at an elevation above Ordnance datum of 400 to 600 feet, and broken and divided by small groups of hills. The main structure is that of an old elevated table-land much dissected, weathered down, and glaciated

"The geological formation is much broken, the upper and lower Silurian, and Ordovician measures being exposed in considerable areas, with less extensive exposures of the Old Red Sandstone, and of Cambrian and Pre-Cambrian measures. The natural drainage is by various streams rising in the hill country to north and west, and forming the small rivers Onny and Clun, which leave the District through the valleys of the south and east to join the Teme river.

"The District contains 16 parishes, and is sparsely populated, and agricultural in character, much of the hill country being cultivated or grazed. A small area in the north was in the past worked for lead, barytes, and other minerals, but these industries have much declined in recent years. The District contains the small market town of Clun in the "south, and has several villages of small size which are principally placed in the valleys, and "some smaller hamlets and many isolated farmsteads scattered about the valleys and "hillsides. The Borough of Bishop's Castle is within, and near the centre of, the District."

Statistics.

The natural increase of the population during the year was 57. The population at the middle of 1906 is estimated at 6,640, and corrected for public institutions, 6,660.

	Death-rates per 1000 population from										
eriod.	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.	Infant Death-rate per 1000 Births.	Birth-rate.
1906	15·2	1·05	·0	1·05	·15	1·65	·60	2·40	1·35	114	23·7
erages years 7-1905	15·0	·45	..	..	..	..	..	..	..	93	25·0

A considerable proportion of the infant deaths may be considered preventable.

The zymotic death-rate was due to 7 deaths from measles, 2 from whooping cough, 2 from diphtheria, 1 from enteric fever, and 1 from diarrhœa.

Infectious Diseases.—Eleven cases of scarlet fever, 2 of diphtheria, 4 of enteric fever, and 4 of erysipelas were notified. Clunton and Clunbury Schools were closed in July on account of an outbreak of seven cases of scarlet fever. Of the two cases of diphtheria, one was imported and n the other the infection was probably imported. Two of the cases of typhoid fever were in Clun (one imported), one in Clunbury parish, one in Lydbury North parish. Whooping cough and measles were prevalent, and 8 schools were closed in consequence.

Hospital Isolation—No isolation hospital. In the Bishop's Castle division an arrangement has been made for use of an unoccupied cottage retained by the Borough of Bishop's Castle for the isolation of small-pox.

Disinfection.—The inspector disinfects by spraying with a solution of formic aldehyde.

Water Supply.—There are public supplies from upland springs for the supply of Clun town and Newcastle. The augmentation of the supply of Clun by improving and extending the system of collection is under consideration.

At Chapel Lawn and Cefn Einion public pumps have been provided by the Council.

Upland private supplies are laid on to Lydbury North, Aston, and Lydbury Down, and there is a piped supply to Linley school.

Schemes of supply have been recommended for Clungunford, Clunbury and Clunton. At Clungunford an extension of the private supply has been made, but no action has been taken with regard to Clunbury and Clunton.

Brockton.—A detailed inspection of the supplies was made in connection with a case of enteric fever. It is recommended that the water of the meadow well be utilised for supplying the whole village, having first collected it at a sufficient distance from the brook.

Sewerage, Drainage, and Excrement Disposal.—"Clun town is sewered for the most part, but only a small number of the houses there have water closets. The principal sewers of the town discharge direct into the Clun river." The question of the pollution of the river is under consideration.

Attention has previously been called to the imperfect drainage of many of the small farm premises. The abolition of privy closets discharging into streams is recommended.

A public tip for house refuse is provided at Clun.

Housing.—The housing conditions on the whole are very fair, but there are many old houses requiring periodic inspection and attention.

Permissive Powers. The Public Health Acts (Amendment) Act, 1890, and the Infectious Disease (Prevention) Act, 1890, have not been adopted. There are no by-laws in force.

Dairies, Cowsheds, and Milkshops are inspected. There are no regulations. There are 5 cowkeepers and milksellers on the register.

Bakehouses—7. Inspected and found to be in good condition.

DAWLEY (Urban).

Medical Officer of Health .. .. M. GEPP, L.R.C.P.E., D.P.H.

Area in Acres ..	.. ..	2,790
Population	*at* 1901 *Census*	7,522
Number of inhabited houses	,, ...	1,633
Number of persons per house	,, ...	4.6

Physical Features and General Character of the District.

"The District lies at considerable elevation upon the Shropshire Coalfield and table-land, of which it forms one of the higher parts. Its surface falls irregularly from north and north-west to south and south-east, and from 670 feet O.D. to some 400 feet O.D. roughly. The surface drainage is good owing to the steep fall of this part of the northern watershed of the Severn. The Geological formation is the Carboniferous, the District being for the most part upon the Coal-measures, but with small exposures of the Millstone Grit in the south-western part.

"As regards its general character, it may be described as a Coal and Iron Mining and Iron-working District largely worked out. Coal Mines long out of work and dismantled Ironworks are common features. At the present time it is chiefly the place of residence of an industrial community, many of whose members work in one or two large modern Engineering or Pottery works within the District, while large numbers work in Mines, Ironworks, and Brick and Tile works outside the District.

"For an Urban community it is very scattered in character. There is a compact business centre, with some continuous lengths of houses radiating for some distance from it along the main roads. The rest of the District is practically rural in character, with houses isolated or in groups of more or less number.

"The District is naturally very healthy, being high, dry, and wind swept, and surface drainage being good."

Statistics.

The natural increase of the population during the year was 77. The population at the middle of 1906 is estimated at 7,670, and corrected for public institutions, 7,700.

	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
eriod.	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bron-chitis.	Pneu-monia.	Heart Diseases.	Cancer.		
1906	16·0	1·43	·0	·65	·26	1·82	2·98	1·43	1·17	165	26·0
erages years 97-1905	15·6	·41	..	..	..	..	..	..	..	102	32·5

The high infantile rate is ascribed partly to the prevalence of whooping cough. "Of the 33 infant deaths there were 12 from diarrhœa, wasting diseases and convulsions, which together with some 12 deaths from bronchitis and pneumonia might probably be ascribed in large measure to errors in feeding and rearing of infants."

Infectious Diseases.—The zymotic death-rate was due to 6 deaths from whooping cough, 1 from diphtheria, and 4 from diarrhœa. Ten cases of scarlet fever, 3 of diphtheria, and 1 of enteric fever were notified. Whooping cough was very prevalent in the early part of the year in the northern part of the district, and three of the schools were closed.

Isolation Accommodation.—There is a joint hospital for small-pox with Shifnal, but no provision for other diseases.

Disinfection.—The sanitary inspector disinfects with a spraying apparatus.

Water Supply—An adequate supply from public and private pump wells and springs. An agreement has been made with the water authority of the adjoining part of the Borough of Wenlock for the supply of water in bulk from the deep well at Harrington. Plans have been got out and await official sanction.

Sewerage and Drainage.—The sewers, which have been mostly adapted from old road water drains and culverts, are being improved from year to year. The outfall of the main sewers is mostly by long open channels in which considerable purification takes place, into water courses draining to the Severn. There are complaints at times of the untrapped road gullies which act as sewer ventilators. House drains are mostly roughly constructed.

Four lengths of piped sewers have been laid at Little Dawley. Arrangements have been made for sewering and treating the sewage of 18 cottages previously referred to.

Excrement Disposal and Scavenging.—Privies with underground vaults are in common use. With a better water supply and sewerage system some of these in the more central parts will no doubt be converted to water-closets. The scavenging of privies and removal of house refuse is now undertaken by the Council, on request and payment of cost of removal by the owner or occupier. The scheme appears to be successful enough to warrant extended trial. The substitution of pail or earth closets for privies is recommended in many cases.

Housing.—Most of the houses are small and of old construction; continued attention to remediable causes of dampness and improvement of ventilation is recommended. A good deal of improvement has taken place of recent years. Four houses have been certified as unfit for habitation during the year.

Permissive Powers.—Part III of the Public Health Acts (Amendment) Act, 1890, is in force, but the Prevention Act is not adopted. By-laws are in force in respect of nuisances, new buildings, and slaughter-houses.

Dairies, Cowsheds, and Milkshops.—Regulations are in force. The number of dairies, etc., on the register is 24.

Slaughter-houses—8 on the register; inspected regularly and kept in fair condition.

Bakehouses—14 on the register; in fair condition.

DRAYTON (Rural).

Medical Officer of Health .. .. A. MACQUEEN, M.D.

Area in Acres ..	.. ..	51,384
Population	*at* 1901 *Census*	11,708
Number of inhabited houses	,, ...	2,655
Number of persons per house	,, ...	4.4

Physical Features and General Characteristics.

> "The Rural Sanitary District of Drayton comprises an area of upwards of 51,000 acres, "situated in the great central plain of England. The general elevation of the District is "about 300 feet. The District extends from the parishes of Adderley and Norton-in-Hales "on the North, to the parish of Woore on the north-east, where the three counties, Cheshire, "Staffordshire, and Shropshire join; to the south, as far as and including the parishes of "Hinstock and Child's Ercall, and the villages of Eaton and Little Bolas in Stoke parish. On "the east it is bounded by the River Tern and the parish of Cheswardine. On the west it "extends to and includes the village of Stoke-upon-Tern, the parish and village of Hodnet, "and the hamlet of Marchamley. Near the centre of the district is the town of Market "Drayton with the township of Little Drayton adjoining, and the parish of Moreton Say. "The formation throughout is the new red sandstone, which attains its greatest elevation in "England, in the Hawkstone Hills, near the western limit of the District. The river Tern in "its winding course to the Severn drains the greater portion of the District. The land in "general contour is level, well watered, highly cultivated, and there are some finely timbered "estates. The population is chiefly employed in agricultural pursuits and stock-raising."

Statistics.

The natural increase of the population during the year was 128. The population at the middle of 1906 is estimated at 11,530.

Period.	Death-rates per 1,000 population from									Infant Death-rate per 1000 Births.	Birth rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.		
1906	14·0	·69	·17	1·03	·34	1·03	·95	2·24	·77	80	24·8
Averages for years 1896-1905	*14·5	..	..	..	..	..	..	..	..	127	25·7

* Not corrected for Public Institutions.

The zymotic death-rate was due to 1 death from enteric fever and 7 from diarrhœa.

Infectious Diseases.—Thirty-four cases of scarlet fever, 7 of diphtheria, 6 of erysipelas, and f enteric fever were notified. Most of the cases of scarlet fever occurred in Market Drayton, l Little Drayton, and by prompt removal to the hospital a serious epidemic was avoided.

Pulmonary tuberculosis has been voluntarily notifiable since 1900, but very few cases have en reported. Woodseaves and Norton schools were closed on account of chicken-pox; derley and Norton schools on account of whooping cough; Market Drayton and Little ayton schools on account of scarlet fever and whooping cough.

House Accommodation.—Building by-laws are now in force. The house accommodation is, ierally speaking, ample. In Market Drayton and neighbourhood many new houses have en built. The medical officer of health has reported 10 houses as unfit for habitation during e year.

Lodging-houses, Bakehouses, and *Slaughter-houses* are regularly inspected.

Removal and Disposal of House Refuse.—This falls on the occupier, as there is no public stem.

Excrement Disposal.—Partly by water-closets and partly by privies. The water carriage stem should become general in Market and Little Drayton.

Sewerage and Drainage—The Little Drayton drainage sewage treatment works are still operating isfactorily. The time has arrived when the scientific treatment of the sewage of Market ayton should be provided for on similar lines. The river Tern is polluted with sewage for a nsiderable distance. A comprehensive scheme of sewage disposal for the town is urgently quired.

Water Supply.—The Market Drayton supply has been extended to Betton, and arrangents have been made to supply Norton. Cheswardine and other villages in the district have satisfactory supplies, and the subject is under the consideration of the Council.

ELLESMERE (Urban).

Medical Officer of Health .. .. A. H. HOFFMAN, M.D.

Area in Acres ..	.. ..	1,204
Population	*at* 1901 *Census*	1,945
Number of inhabited houses	,, ...	425
Number of persons per house	,, ...	4·5

tistics.

The natural increase of the population during the year was 8. The population at the ddle of 1906 is estimated at 1,987.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	16·1	1·01	·0	1·01	·50	1·01	·50	1·01	·50	83	24·1
Averages for years 1899-1905	14·6	..	..	..	..	..	..	..	..	..	26·1

The zymotic death-rate was due to 2 deaths from whooping cough.

Infectious Diseases.—Two cases of scarlet fever, 1 of typhoid fever, and 1 of erysipelas were notified. The case of typhoid fever was imported from outside the district.

Phthisis and Tuberculosis.—There were 5 deaths from phthisis and 2 from other forms of tuberculosis. Dr. Hoffman remarks that "The absence of any sanatorium for the open air treatment of non-paying patients certainly prevents any attempt to successfully treat phthisical cases."

Hospital Accommodation and Disinfection.—There is no hospital accommodation for infectious cases and no steam disinfector.

House Accommodation, good.

Drainage and Scavenage—satisfactory. A modification of the outfall works is necessary, on account of a technical breach of the Rivers Pollution Prevention Act.

Water Supply.—The Liverpool supply is laid on to most of the houses.

Workshops.—A register is kept and the places regularly inspected, and action taken where necessary.

Slaughter-houses, Bakehouses, and Dairies, also receive attention.

ELLESMERE (Rural).

Medical Officer of Health .. .. A. H. Hoffman, M.D.

Area in Acres ..	.. ..	51,117
Population	*at* 1901 *Census*	7,911
Number of inhabited houses	.. ..	1,658
Number of persons per house	,, ...	4.7

General Characters of the District.

"The District is entirely agricultural and the houses are for the most part widely "distributed. There are a few small villages and hamlets of which Baschurch is the largest. "Most of the district is undulating but some parts are very flat, nearly all the land is "cultivated. The sub-soil is gravel with some clay and drift."

Statistics.

The natural increase of the population during the year was 88.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	13·6	1·13	·25	2·02	·38	·63	·88	1·13	1·39	81	23·3
	..	..	..	..	..	..	..	..	..	..	..

The zymotic death-rate was due to 6 deaths from whooping cough, and 3 from diphtheria.

Phthisis and Tuberculosis.—There were 15 deaths from phthisis and 2 from other tuberculous diseases. Dr. Hoffman says " If phthisis was made a notifiable disease, I think, it might impress upon the public the danger this disease is to others, as the long illness that often obtains tends to make people forget how infectious it is." He expresses the hope that a sanatorium may be provided.

Infantile Mortality.—The chief causes of deaths of infants were, whooping cough 6 deaths, convulsions 2, premature birth 2.

Infectious Disease.—Three cases of scarlet fever, 18 of diphtheria, 1 of enteric fever, and 1 of erysipelas were notified. Except for three houses, in each of which 2 cases occurred, the outbreaks of diphtheria were in separate houses and more or less scattered.

House Accommodation—as a rule, satisfactory.

Drainage and Scavenage.—Most of the houses have ample space for disposal of slop water and privy contents.

Water Supply—mostly from wells. Cockshutt has an excellent water supply, and part of Duddleston Heath has water laid on. Dr. Hoffman proposes acting on Dr. Whitaker's suggestion that where water is obtained from shallow wells in a porous subsoil, samples shall be taken for analysis.

Workplaces, etc.—Register kept—56 places on register. They have been visited and dealt wi

Bakehouses, Cowsheds, and Dairies have also been inspected and given satisfaction.

LUDLOW (Urban).

Medical Officer of Health .. .. C. B. Cranstoun, M.B.

Area of Acres (after extension)	418
Population at 1901 *Censu*	6,373
Number of inhabited houses ,, ...	1,372
Number of persons per house ,, ...	4·6

Character of the District.

> "Ludlow is a small agricultural town on the southern border of Shropshire, about 360 fee "above sea level. It is situated on a large spur of limestone rock, which rises at the lowe "end of the Corve Valley. On the north, west, and south sides, it is separated from th "surrounding hills by the rivers Corve and Teme. On the east side the ground graduall "rises till it becomes continuous with the Clee Hill range."

Statistics.

The natural increase of the population during the year was 25. The population at th middle of 1906 is estimated at 6,570.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birt rat
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.		
1906	17·3	·30	·15	1·22	·61	1·83	·76	1·52	1·67	137	21·
Averages for years 1896-1905	18·4	..	..	..	..	..	..	..	..	129	27·

The zymotic rate was due to 2 deaths from diphtheria.

The infant mortality was 137 compared with 109 last year.

The analysis given of vaccination is satisfactory, and there is a slight decrease of conscientious objectors.

Infectious Disease.—There were 2 cases of diphtheria, 7 of erysipelas, 2 of scarlet fever, and 1 of enteric fever notified.

Isolation Hospitals.—Dr. Cranstoun says the small-pox isolation hospital has proved very useful in the past, and he recommends the provision of hospital accommodation for other infectious diseases, either for the town alone or for the town and district, and suggests two beds for every thousand inhabitants.

Tuberculosis.—Thirteen deaths were due to tuberculosis. The provision of cheap and lightly-built shelters for open-air treatment is suggested.

Water Supply has been good in the lower parts of the town in quality and quantity, although liable to slight discolouration after rain. A scheme has been got out for supplying the higher part of the town and improving the general supply.

Dr. Cranstoun points out the necessity for (1) a proper system of medical inspection of school children ; (2) the training of girls and young parents in the elements of hygiene ; (3) careful supervision of children of the poor carried out by regular visits to their homes by a trained nurse.

Sewerage.—The new sewage scheme is now complete, the water carriage system is being extended and the provision of a further supply of water is thus made imperative. Advice is given with regard to the laying of drains. It is recommended that every joint should stand the water test.

House Accommodation.—During the year the medical officer of health has advocated acting under the Housing of the Working Classes Act where necessary.

Disposal of Refuse.—The refuse is now satisfactorily disposed of, being carted to Portman Meadow.

Dairies, Cowsheds, and Milkshops. These have been inspected ; the cowsheds are still capable of improvement.

Inspection of Workshops, etc.—The general sanitary condition of the bakehouses is good ; certain improvements have been carried out. The workshops are in a clean condition : air space satisfactory ; ventilation has been improved where necessary.

LUDLOW (Rural).

Medical Officer of Health .. .. LIONEL WILLIAMS, M.B.

Area in Acres	66,350
Population *at* 1901 *Census*	9,585
Number of inhabited houses	2,003
Number of persons per house	4·7

Statistics.

The natural increase of the population during the year was 133.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	12·4	·21	·73	·52	·00	·62	1·14	1·97	·52	103	25·0
	..	..	..	..	..	..	..	..	..	..	..

The zymotic death-rate was due to 2 deaths from diphtheria.

Infant Mortality.—There seems to be a deplorable lack of knowledge on the feeding and nursing of infants. Teaching the mothers is advocated.

Infectious Diseases.—Fifteen cases of diphtheria, 7 of erysipelas, 15 of scarlet fever, and 2 of puerperal fever were notified. Twelve of the 15 cases of diphtheria occurred in the Culmington district. The outbreak was not attributed to milk or water, defective sanitation, or school attendance. No cases were however notified after the school was closed. It is suggested that when there is diphtheria in a school, all children with sore throats should be bacteriologically examined.

Water Supply.—There has been some improvement to the water supplies of Bromlow and Stoke St. Milborough, and a new water supply has been provided at Dinchope for a farm and cottages.

Privies have been converted to water-closets at 24 houses in Craven Arms.

Cowsheds, Dairies, and Slaughter-houses.—There are 21 dairies and 10 slaughter-houses registered. They have been visited and found fairly satisfactory.

NEWPORT (Urban).

Medical Officer of Health .. .. M. Gepp, L.R.C.P.E., D.P.H.

Area in Acres		768
Population	*at* 1901 *Census*	3,241
Number of inhabited houses	,, ...	720
Number of persons per house	,, ...	4.5

Physical Features and General Character.

> "The Urban District is of small area, of rather more than a square mile, lying on the
> "eastern border of the County. It is level in contour, the general elevation being some 250
> "feet above Ordnance datum. The natural drainage is to the west, but there is no stream of
> "any importance. The subsoil is the Bunter beds of the New Red Sandstone. The District
> "includes the town of Newport, consisting chiefly of one long and wide street about one mile
> "in length, running north and south, with several narrow lanes and passages and courts
> "running from it at right angles. This part of the town is old and compact, and there is
> "about the centre some crowding of houses upon area. To east and west is open country with
> "extensions of more modern villa residences and artisan cottages along the roads converging
> "on the town, and some outlying collections of houses. Newport is a market and residential
> "town. There is a brewery and a tanyard."

Statistics.

The natural increase of the population during the year was 18. The population at the middle of 1906 is estimated at 3,189, and corrected for public institutions, 3,120.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	19·5	·96	·32	1·28	·96	1·60	·64	2·56	·64	127	25·3
verages er years 98-1905	16·1	·63	..	..	..	..	..	..	..	101	25·2

The infant mortality although high has no particular significance for a single year, the number being small. Of the ten deaths, 2 from diarrhœal diseases and 2 from wasting, may be ascribed to errors of diet, and 2 from tubercular meningitis to tuberculous milk. Regular veterinary inspection of all milch cows is recommended.

Infectious Disease.—The zymotic death-rate was due to 3 deaths from diarrhœa The only cases notified were 6 of scarlet fever.

Isolation Accommodation.—There is a small isolation hospital consisting of a cottage and two small wards. Three cases of scarlet fever were admitted during the year. For small-pox a site for the erection of a tent has been secured and an arrangement made for joint action with the other authorities of the Union.

Disinfection.—Sulphur candles are supplied by the Council, and other disinfectants for cleansing. The provision of a spraying apparatus is recommended.

Water Supply.—There is a public supply laid on to houses and stand pipes from three artesian wells in the new red sandstone. Two of the wells are close together at the engine house, and the third, which yields the greater part of the supply, is about a quarter of a mile away, and is connected to wells at the engine house by means of a syphon. Water is pumped to a covered reservoir and laid on to the houses, and also to 22 public hydrants supplying 230 houses. Very few private pumps remain.

Sewerage and Drainage.—The town is well sewered. The new sewers have man-holes for flushing and surface openings for ventilation. The outfall works consist of grit chamber, open septic tank, single contact filter, and a small area of land for storm water. Drainage regulations have been adopted and new drains are submitted to the water test. There is still much to be done with regard to the old drains.

Excrement Disposal.—About three quarters of the houses have old privies. The conversion of these to water-closets is recommended. Nineteen were converted during the year.

Scavenging is undertaken by the Council.

Housing.—There are a good many worn out houses requiring frequent supervision.

Permissive Powers.—The Public Health Acts (Amendment) Act, 1890, part III, and the Infectious Disease (Prevention) Act, 1890, have been adopted. By-laws are in force in respect of nuisances, new streets and buildings, slaughter-houses, and common lodging-houses.

Dairies, Cowsheds, and Milkshops.—Regulations are in force. The number of dairies, etc., on the register is 18.

Slaughter-houses—9 on the register; tolerably well kept.

Common Lodging-houses.—There are 3, regularly inspected and kept according to the by-laws.

NEWPORT (Rural).

Medical Officer of Health .. .. M. Gepp, L.R.C.P.E., D.P.H.

Area in Acres ..	.. ..	22,807
Population	*at* 1901 *Censu*	6,033
Number of inhabited houses	,, ...	1,284
Number of persons per house	, ...	4·7

Physical Features and General Character.

> "The District is in part Agricultural and part Industrial, and lies within the eastern border "of the County. The northern and larger part is on the Shropshire Plain, here formed of the "Bunter beds of the New Red Sandstone, and is entirely agricultural. The elevation of this "part varies from 150 to 300 feet above Ordnance Datum. The southern and much smaller "part rises rather rapidly from the plain, reaching some 500 feet elevation at the extreme "border on the south, and comprises the apex of the extensive triangular coal-field, which has "its base some miles to the south. This part lies upon the coal measures, with a small "intrusive outcrop of much broken older strata, forming Lilleshall Hill. The natural drainage "is by various small streams from the south and east flowing towards the west, and falling "into the Tern river outside the District.
>
> "There are nine parishes in the District, all agricultural, except the large parish of "Lilleshall, which is in part agricultural, but also contains the industrial area of Donnington "Wood, several collieries and some engineering and other ironworks employing the majority "of the workers in this area."

Statistics.

The natural increase of the population during the year was 46. The population at the middle of 1906 is estimated at 6,026, and corrected for public institutions, 6,050.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	14·9	·99	·49	·99	·66	·99	1·15	·82	·99	81	22·5
Averages for years 1897-1905	15·4	.86	..	..	..	..	..	..	..	124	27·0

The infantile rate was much below the average for the district. The average is a high one, and indicates that greater knowledge and care in the feeding and nursing of infants is much to be desired.

The zymotic death-rate was due to 3 deaths from scarlet fever, 1 from whooping cough, and 1 from diarrhœa.

Infectious Diseases.—Eighty-one cases of scarlet fever, 14 of diphtheria, 1 of enteric fever, and 6 of erysipelas were notified. *Scarlet Fever* was principally in the Donnington Wood Ward of Lilleshall Parish. The cases were in the early part of the year, and the spread was due to unrecognised cases. The schools were closed and caution handbills circulated, Twelve cases occurred in and around Lilleshall village chiefly in the last quarter. *Diphtheria.*—Seven of the 14 cases were in the Donnington Wood area. The remaining 7 occurred in two houses in Tibberton parish. Two cases were discovered by Dr. Gepp in his investigation by submitting swabs from children who had suffered from slight sore throat. These children were excluded from school, and a probable source of spreading infection cut short. The Council authorised the protective use of antitoxin at the public cost and 13 children were so treated.

Hospital Isolation.—None. There is an arrangement with Newport Urban and Gnosall Rural Authorities for the use of a tent should small-pox arise.

Disinfection.—The sanitary inspector disinfects with a spraying apparatus.

Water Supply.—Church Aston and Chetwynd Aston villages are supplied from Newport Urban District Council's supply, water being taken in bulk. Extension to Blackberry Bank and Pave Lane is under consideration.

Lilleshall village is supplied by the Duke of Sutherland, water being raised by a wind pump from a well in the Bunter measures to a reservoir on Lilleshall Hill. The mains are carried to Muxton village, and the greater part of Donnington village. Donnington Wood hitherto supplied with water, not free from objection, from the Granville Colliery is to be supplied along with Oakengates from a deep well at Hilton Bank.

Tibberton village is supplied by stand pipes from a well outside the village, the water being raised by a wind pump. Edgmond village has a private supply laid to several houses from a well in the sandstone, the water being raised to a reservoir by a wind pump. It is also connected to a public fountain.

Sewerage, Drainage, and Excrement Disposal.—In Edgmond village most of the houses are drained to one or other of three sewers. An improvement doing away with an outfall near the centre of the village is now under consideration.

The drainage of Donnington Wood was greatly improved by a system of combined drainage carried out in 1905; some 15 more houses are now being connected, and an offensive condition of the water course will be remedied. A proposal to pipe or culvert a length of brook on the boundary of the district, offensively polluted with sewage, is under consideration. Dr. Gepp recommends that the sewage should be diverted.

Housing.—The census returns showed considerable overcrowding. This matter is not being lost sight of. In the industrial area there are many houses of an unsatisfactory type. The Lilleshall Company has in recent years done much good work in improving this property. The barracks and one-storey houses generally most need improvement. They need good spouting and troughing, ceiling of roofs, through ventilation, and special attention to remedying dampness.

Permissive Powers.—The Public Health Acts (Amendment) Act, 1890, and the Infectiou Disease (Prevention) Act, 1890, are not adopted. There are no by-laws.

Dairies, Cowsheds, and Milkshops.—No regulations are in force. The question of making regulations has been discussed.

OAKENGATES (Urban).

Medical Officer of Health .. .. JOHN A. ROSE, M.A., M.B., D.P.H.

Area in Acres ..	.. ..	2,327
Population	*at* 1901 *Census*	10,906
Number of inhabited houses	,, ...	2,187
Number of persons per house	,, ...	5.0

General Character of the District.

"The District was formed in 1898, and included parts of three Rural Districts, viz: "Wellington, Newport, and Shifnal.

"It contains an area of about 3,600 acres, and includes thickly populated areas, and open "country with scattered cottage property, which are fast becoming much more Urban in "character, through extensive building operations that have been going on; for example, the "Trench, Furnace Lane, &c., and outlying part of St. Georges.

"Throughout the area different portions of the District vary much in altitude.

"The District is the centre of important Coal Mining and Iron Industries, and the District "is full of cottages that were built a number of years ago; as is common in such Coal Mining "and Iron Districts, without the slightest attention to sanitation, which has added to the "difficulty of reaching the comprehensive sanitary changes which your Council have with "difficulty acquired, especially of late. In addition to this cottage property, there is a large "number of houses of the villa type with proper sanitation, built recently.

"The rateable value is distinctly low, making it necessary perhaps more than other such "Districts for you to have time to carry on and accomplish modern reforms.

"The old fashioned style of property with attached varied sized ashpits and privy pits, at "one time very bad, but now for the most part in good condition, and with such outbuildings "as pig-styes in close proximity to houses, has added to the difficulty of proper sanitary "administration."

Statistics.

The natural increase of the population during the year was 145. The population estimated at the middle of 1906 was 11,039.

Period	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	16·9	1·45	·72	·72	·18	·63	1·45	·99	·81	112	28·3
1905	15·6	..	..	..	..	..	..	..	..	..	31·3

The diminution of the infantile mortality is attributed partly to improved sanitary conditions and partly to the action of the County Council under the Midwives Act. Twelve out of the 35 deaths are attributed to want of proper feeding and management ; 6 from pneumonia are attributed to defective housing.

The zymotic death-rate was due to 6 deaths from scarlet fever, 6 from whooping cough, 2 from diphtheria, 1 from enteric fever, and 1 from diarrhœa.

Infectious Diseases.—One hundred and twenty-one cases of scarlet fever, 22 of diphtheria, 5 of enteric fever, and 6 of erysipelas were notified. Both scarlet fever and diphtheria were particularly prevalent towards the end of the year, and affected St. Georges more than other part of the district. Dr. Rose attributes the local prevalence to the high altitude and exposure to north-east winds ; and to the fact that there are still many nuisances due to property not being connected to the sewers. As general causes he mentions (1) defective housing, particularly want of efficient fire-places in bedrooms, preventing proper isolation ; (2) school attendance ; (3) disinfection and freedom from quarantine at too early a date—this has now been remedied ; (4) the absence of any means of disinfecting clothing, etc.

The source of infection of the 5 cases of typhoid fever was not discovered, but the cases were most probably contracted outside the district.

House Accommodation.—Overcrowding has been considerably diminished and many sanitary defects removed. There is still a considerable amount of work to be done, although fresh building is improving housing conditions. The number of houses unfit for habitation are becoming fewer each year.

Drainage and Scavenage.—The sewering of Ketley Bank is under consideration. The scavenging is very difficult, but so far as possible a proper system is now in operation. With a water supply many of the old privies will be converted to water-closets.

Water Supply.—The mains for the new scheme have been laid and the whole should be complete in a month or two.

Trades.—There are 59 workshops on the register and 102 inspections have been made ; defects were found in 5 and remedied after written notice. Dr. Rose refers to the great difficulties incidental to meat inspection in a district like Oakengates.

OSWESTRY (Urban).

Medical Officer of Health		R. DE LA P. BERESFORD, B.A., M.D.
Area in Acres		1,887
Population	*at* 1901 *Census*	9,579
Number of inhabited houses	,, ...	2,083
Number of persons per house	,, ...	4.6

Statistics.

The natural increase of the population during the year was 127. The population at the middle of 1906 is estimated at 9,950.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	15·7	·86	·30	2·11	·40	·40	·90	1·71	1·21	80	26·4
Averages for years 1896-1905	17·1	..	..	..	..	..	..	..	..	..	27.3

The zymotic death-rate was due to 4 deaths from whooping cough, 1 from measles, 1 from diphtheria, 1 from enteric fever, and 1 from diarrhœa.

The number of deaths from cancer has increased from 7 last year to 12 this year, and the deaths from phthisis have increased from 10 to 21. Dr. Beresford again points out the danger of sending children to school at too early an age.

Scavenging.—"The daily removal of refuse is still carried on with the best effect on the health of the town."

Water Supply has been good in quality, and the Liverpool water supplied the deficiency in the summer.

OSWESTRY (Rural).

Medical Officer of Health	R. de la P. Beresford, B.A., M.D.	
Area in Acres		60,36
Population	*at* 1901 *Census*	14,727
Number of inhabited houses	,, ...	3,220
Number of persons per house	,, ...	4.6

Statistics.

The natural increase of the population during the year was 153. The population at the middle of 1906 is estimated at 14,900.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	14·5	·33	·54	·47	·60	·74	·60	1·54	1·54	84	25·5
Averages for years 896-1905	15·4	..	..	..	..	..	..	..	..	..	27·2

The zymotic death-rate was due to 1 death from measles, 1 from whooping cough, 1 from diphtheria, and 2 from diarrhœa.

Infectious Disease.—Eleven cases of diphtheria, 5 of erysipelas, and 8 of scarlet fever were notified. For the prevention of diphtheria early closing of the schools, with examination of the throats of children on re-assembling, is recommended.

The schools have been found in a fairly good sanitary condition. Thorough cleaning and disinfecting once a year is recommended, and the floors, etc., should be scrubbed once a week or fortnight. Much harm is attributed to damp and muddy playgrounds.

House Accommodation.—A number of houses have been built at a rental of about £10, but there is a great need for cheaper houses, and this need is preventing efficient action with respect to older houses, many of which are damp and unhealthy.

The danger that is arising in rural districts from building houses in long rows and with insufficient land is pointed out. Such houses must in the long run necessitate schemes of sewerage and sewage disposal.

All the water supplies yielded an abundant supply with the exception of those to Pant, St. Martin's, and Ifton Heath, which only failed for a single day.

A supply to Gobowen and Whittington will be in working order during the year.

SHIFNAL (Rural).

Medical Officer of Health	A. E. White, M.B.
Area in Acres	45,380
Population at 1901 *Census*	8,844
Number of inhabited houses ,, ...	1,918
Number of persons per house ,, ...	4·6

General Characters.

"In extent it has an area of 45,380 acres. Two of the parishes, and part of a third, are "administered by you though in the geographical county of Stafford. The population is small "and for the most part thinly scattered, with an average density of only one person per five "acres of land. The District comprises sixteen parishes, all of them, excluding a portion of "Shifnal and Albrighton, being strictly rural and agricultural. It overlies a succession of "New Red Sandstone series, coal measuses cropping up at the extreme western boundary. Shifnal is "the chief market town of the District and has many attractions as a residential place.

"The Infectious Disease (Prevention) Act and part of the 1890 Amendment Act are in "force, and Model Regulations for Cowsheds and Dairies, together with By-laws relating to "new buildings and also to nuisances have been adopted.

"Public Institutions in the District include the Workhouse, a Cottage Hospital, and an "Isolation Hospital for Small-pox."

Statistics.

The natural increase of the population during the year was 100. The population is estimated at the middle of 1906 at 8,800.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	13·6	·23	·45	1·01	·57	·57	·68	1·25	1·13	82	24·8
Averages for years 1896-1905	14.6	..	..	..	..	..	..	..	..	..	23·6

The zymotic death-rate was due to two deaths from whooping cough. There was also one death from diphtheria in a visitor.

The phthisis rate 1·0 must be regarded as high for the district.

Infectious Diseases.—Twenty-seven cases of scarlet fever, 2 of enteric fever, 1 of erysipelas, and 1 of diphtheria were notified. Most of the cases were at Norton, where the disease apparently was introduced from the neighbouring village of Madeley. Thirteen cases occurred between January 24th and February 12th, all but one attending Norton School. The school was promptly closed. A group of 5 cases occurred in Albrighton and Donington. Four cases in one house in Tong were traced to an unnotified case. A case of enteric fever occurred at a house with defective drainage and water supply. The defects were promptly remedied.

Housing Accommodation.—On the whole good. Three houses have been closed as unfit for habitation and several cases of overcrowding dealt with, but there has been a difficulty owing to want of suitable cottages.

Drainage and Scavenage.—The policy of converting privies and pan closets to water closets in the town of Shifnal is advocated. The scavenage is satisfactory. The effluent at the Shifnal outfall has been satisfactory for some time, but the land treatment needs certain improvements.

At Albrighton the need for some improvement in the treatment of the sewage has become imperative. It is to be hoped that the scheme under consideration will prove satisfactory.

Water Supplies.—The Shifnal supply has been extended to 20 houses. "A good many wells still exist in Shifnal, which are shallow and in a porous subsoil, and where privies exist in the neighbourhood are a source of danger, as the analysis of these waters was over and over again proved." Albrighton is supplied from the Wolverhampton main and Kemberton from the Shifnal main.

Workshops, etc.—A register of workshops is kept and they are inspected regularly. The bakehouses, although the premises are sometimes unsuitable, are kept clean.

Cowsheds and Dairies are being constantly improved. During the year 112 notices were served and complied with. Large quantities of milk are exported from the district. As a rule the large farms recognise the advantage of cleanliness and good ventilation, but there are a considerable number of cowsheds which are kept close and stuffy, conditions favourable to the production of tuberculosis.

SHREWSBURY (Urban).

Medical Officer of Health	M. Gepp, L.R.C.P.E., D.P.H.
Area in Acres	3,525
Population at 1901 *Census*	28,395
Number of inhabited houses ,, ...	6,065
Number of persons per house ,, ...	4·68

Physical Features and General Character of the District.

"The Borough comprises 3,525 acres, forming an area nearly equal in length and breadth, and roughly quadrangular. This area lies in the Valley of the Severn, which is here wide and open, having a gradual fall to the river, and varying in elevation from 150 to 260 feet above sea level. The geological formation is varied, the Permian Red Sandstone occurring in a band across the centre, with the Bunter beds of the New Red Sandstone to the North, and the Coal measures on the South. The actual sub-soil is however mainly river drift of varying and generally considerable thickness, in places stiff clay, but generally sandy and dry in the upper part, with clay underlying at greater or less depth. The contour offers good natural drainage to the Severn, which owing to its devious course flows over a length of some eight miles, either through, or along the borders of, the District. The actual length of its flow through the District is about three miles."

"The climate of Shrewsbury is mild and healthy. Though not bracing and having the characteristics of a valley climate, yet the open nature of the valley and the varied contours of the town, together with the course and movement of the Severn through and around the town, prevent stagnation of the air, and the prevailing South-West wind has free course, keeping the air clear and fresh, and river fogs are neither common nor dense. The rainfall is moderate, the town lying within the rain shadow of the hills of Wales and the Border Country. The rainfall for Shrewsbury in 1906, was 20.63 inches, as given in the 'Tables of 'Meteorological Data,' published in the Quarterly Returns of the Registrar General. . . . ."

"The old town of Shrewsbury stands on two hills, of generally moderate ascent, but steep in parts, and nearly surrounded by the river, which here forms a horseshoe curve some two miles round with a width across the neck of some 400 yards. This enclosed part is for the most part densely built upon. Of the various suburbs across the river, Frankwell forms an old settlement on the North-West, with modern extensions, chiefly of villa residences, along the main roads radiating from it. Kingsland is a modern residential suburb to the South-West, Coleham an old settlement to the South-East, with Belle Vue, a modern extension, adjoining; and Abbey Foregate, old near the river, and modern and residential further out, lies to the East. To the North-East, on the low-lying ground outside the neck of the peninsula, is the considerable district of Castle Fields, built over for the most part some forty to fifty years ago, and forming an artisan residential quarter."

"Shrewsbury is a market and residential town, and an important railway centre for trade of a large agricultural district, a large number of main roads converging on the town. Industrial works are neither numerous nor extensive for a town of the size of Shrewsbury. There are large Maltings, three Breweries, a Tanyard, an Agricultural Implement Works, a Railway Carriage and Wagon Works, an Iron Foundry, Tobacco and Cigar Factory, Gas Works, and Electric Light Works."

Statistics.

The natural increase of the population during the year was 262. The population at the middle of 1906 is estimated at 29,288, and corrected for public institutions is estimated at 29,548.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Disease	Cancer.		
1906	14·7	1·42	·64	1·08	·38	·98	·91	1·66	1·05	113	23·3
Averages for years 1896-1905	17·1	1·19	..	..	..	..	..	..	..	135	25·8

The birth-rate and death-rate were both the lowest on record.

Infantile Mortality.—The deaths due to errors of diet and management account for more than 50%. Referring to the Report of the International Conference on Infantile Mortality, Dr. Gepp is of opinion that instruction of the girls in the senior classes in elementary hygiene with reference to the dietary and management of infants promises the best for permanent improvement. The importance of extension and enforcement of the Dairies and Cowsheds Order, of periodic veterinary inspection of milch cows, of prompt notification of births, of the appointment of qualified women in the care of infants, is insisted upon.

A "Health Society" has been formed principally with the object of dealing with infantile mortality, and a qualified health visitor has been appointed. Weekly returns of births are now received from the Registrars.

Infectious Disease.—The zymotic death-rate was due to 5 deaths from diphtheria, 21 from whooping cough, 2 from typhoid fever, and 14 from diarrhœa.

Scarlet Fever.—There were 33 cases, 20 of which were in scattered outbreaks in various parts of the Borough, and at different times of the year. In November and December ten cases occurred in one milk supply, and notwithstanding some points difficult of explanation, Dr. Gepp definitely attributed the outbreak to the milk, the infection arising in all probability from an overlooked case at the dairy. Only a small proportion of the houses supplied with milk were affected and in no case more than one inmate of each house. This unusual incidence is probably to be explained by the infection of the milk being occasional and slight, the infective child suffering from a very mild attack and having no direct association with the dairy. Four cases were removed to the isolation hospital.

Diphtheria.—There were 47 cases with 5 deaths, the disease being more prevalent than in any year since 1898. A circular for the guidance of school teachers was drawn up and distributed.

Enteric Fever.—There were ten cases with two deaths, the origin of the cases being obscure.

Phthisis. The rate for the year was 1·083. During the last ten years the rate has been 1·45 compared with 1·19 for the seven chief epidemic diseases.

Voluntary notification is recommended as the first step in its prevention, to be followed by (1) disinfection of houses on removal or death, (2) visits to houses to give advice, etc., (3) disinfection on receipt of notification where it is found necessary, (4) the provision of disinfectants, spittoon and mugs, pocket spittoons, and paper handkerchiefs for the disposal of sputum. It is recommended that an arrangement be made with the Health Society for visiting the cases of phthisis.

Hospital Isolation.—At present there is a small emergency hospital of 6 beds. Dr. Gepp says: "My view has always been that the Council should provide and equip an Isolation Hospital in another and more suitable situation, keeping it always open for private patients on the most reasonable terms possible, and for isolation, at the public cost or at a minimum fee, of patients of the poorer classes, who are often unable to isolate a case with due regard to the public safety in their own homes.

"In my opinion the Council should secure a site, fence it, lay water and drainage, and build a substantial central block to serve as an administrative building, containing quarters for a matron, nurses, and servants, with kitchen and scullery. A porter's lodge, laundry, ambulance and shed, disinfecting shed and mortuary should be provided. The cost of all this could be met by loan. The minimum accommodation for patients should be twenty beds in two blocks of ten beds each, so that wo diseases could be treated at the same time, each block to contain two wards with four beds in each, for the two sexes, and two private wards of one bed each. If it were not thought desirable to go to the expense at first of erecting substantial brick buildings for the patients' blocks, structures of wood and iron could be purchased at much less cost. If these were the best of their kind procurable they would be quite suitable, comfortable and durable, and I should suggest that if possible heir cost be also included in the loan.

"The Borough has for some years been comparatively very free from infectious outbreaks. This good fortune cannot be expected to be permanent. In any and every extensive outbreak there are many cases where the want of home isolation adds to the public danger, and where isolation entirely or for the most part should be afforded at the public cost. And as was seen in the recent Scarlet Fever outbreak, isolation accommodation under present arrangements is inadequate, incomplete, and far too costly to the patient.

"With a new Hospital on the lines indicated, the staff in non-epidemic times would be kept down to the matron, and perhaps one servant and the porter. The matron should be a trained nurse, and required to take charge of one or two simple uncomplicated cases, not needing constant or special nursing care. The nursing staff could be added to as required, as also the staff of servants. In this way the cost per case would be kept as low as possible. With ample ground space, temporary buildings could be quickly added if an epidemic should necessitate more accommodation.

"Such a Hospital appears to me to be the minimum possible for proper equipment of the Borough. Without such provision the Council takes a very undesirable responsibility in the event f a serious epidemic arising. Even if the Borough should for years maintain a fortunate freedom rom dangerous epidemic conditions, the expenditure need in no way be looked on as lost. In any rusade against Phthisis it will become desirable, and even necessary, for public provision to be made for the isolation of advanced cases, those cases which are most deadly in infection, and unfortunately beyond cure. When the Hospital was not otherwise in use, such patients might with great dvantage be taken in, and the Hospital would be found to be of permanent use."

Public Disinfection.—There is no disinfecting station; the provision of one is recommended. Disinfection has in several cases of phthisis been carried out after death or removal of the patient.

Water Supply.—Dr. Gepp says: "In writing my Report a year ago, I hoped, and with the Council, had reason to hope, that a settlement of the water question was within reach. The Council had unanimously adopted an upland scheme, known as the Pulverbatch Upland Scheme, and this scheme, when submitted to the ratepayers together with an alternative Filtered River Water Scheme, having received a large majority of the votes given, the Council proceeded to promote a Bill in Parliament for carrying it into effect. The Bill had then to be submitted to the ratepayers for their formal acceptance, and the result was to negative the scheme decisively.

"The present system is a deadlock, and one can only assume that the town is satisfied with the existing dangerous and dirty system of supply, and prefers to remain in a position which is second rate, and damaging its reputation, rather than incur the cost of any efficient scheme.

"I can only state to the Council that the existing system is no less to be condemned because the ratepayers may be assumed to be satisfied with it, and the Council have unfortunately the responsibility upon them still of finding an efficient remedy for the radical defects and dangers of the existing state of things.

"It might be said that there is a plentiful supply of pure water available for drinking and cooking, easily procurable by all, and that the river water if cleaned of its mud deposits is good enough for personal and domestic washing, baths, and flushing w.c's and drains. In the case of an individual household in the country, such a dual supply often serves efficiently, but in dealing with a community it can only be said that any system which entails the laying on to the houses of a water which is not potable, while the supply of drinking water has to be fetched in from the street is indefensible on account of the risks, against which the householder cannot protect himself. The cleaning of the river water would certainly lead to more risk of its being freely drunk, and in my opinion it would be better not to clean it, unless by perfection of filtration and daily bacteriological examination it can be pronounced to be safely potable."

After quoting from Dr. Hill, of Minnesota, to the effect that the public cannot be trusted to protect themselves against impure water delivered to them, and that a public supply *for whatever purpose* must be hygienically pure at all times, Dr. Gepp concludes by saying "The Council's difficult duty, as it appears to me, is to proceed afresh for a single supply of pure water, under whatever powers and from whatever source may be found to be open to them."

Conduit Water.—The pressure of the Conduit supply has been greatly improved by the erection of a tank holding 30,000 gallons 60 feet above the springs and the provision of a pump to supply it. To meet a possible emergency, the mains were connected with a deep well in the Bunter Beds and the town was supplied from this source for three months. The water was found to be very pure both chemically and bacteriologically.

Sewerage and Drainage.—The town is sewered throughout, but many of the main sewers are old culverts, and many of the piped sewers are not watertight. Gradual replacement of sewers known to be unsound is recommended. Thirty tall ventilating shafts have been erected during the last three years, and the man-hole covers have mostly been closed down. In many of the older parts of the town the ventilation is only by house drain ventilators.

Disposal of Sewage.—The effect of the removal of the sewage from the river has been most marked. A laboratory for analysing effluents has been established.

House Drainage.—Good progress is being made in remodelling old drainage, much of which requires radical improvement. New drains are subjected to the water test.

Excrement Disposal.—Water carriage is practically universal

Public Scavenging.—Refuse is collected weekly and tipped on low lying land in the Borough. Complaints are rarely received. The whole question of the collection of house refuse is under consideration.

Housing.—House accommodation is adequate in amount. Old houses badly placed, and in a decayed condition have not been cleared away for business premises. "There remains therefore a large number of very old houses which from defects of situation or structure, exhibit features of dampness, or insufficient light and ventilation, or dilapidation due to age, and do not afford wholesome conditions of habitation." To enforce a more stringent standard it is necessary that the Corporation should build houses for the working classes under the powers of the Housing Acts, and it is recommended that a beginning be made with some thirty houses at a rental of 3/6 to 4/- a week.

Permissive Powers.—The Public Health Acts (Amendment) Act 1890 has now been adopted, but not the Infectious Disease (Prevention) Act 1890.

Bye-laws are in force with respect to nuisances, new streets, etc., buildings, slaughter houses and common lodging houses.

Dairies, Cowsheds and Milkshops Regulations are in force. One hundred and twenty-seven persons are registered under the Order, but of these 36 only reside in the Borough. The premises in the Borough are visited regularly, but they should be inspected more frequently (6 times a year is desirable for the cowsheds).

Common Lodging Houses.—There are 5 registered. A new set of bye-laws have been adopted during the year.

Slaughter Houses 23 on register. A public slaughter house is under consideration.

Factory and Workshops Act, 1901.—There are 229 workshops on the register, including 48 retail bakehouses. Special attention has been paid to obtaining lists of outworkers from employers.

Sale of Food and Drugs Acts. Fifty-seven samples were taken, of which 3 (milk) were found to be adulterated. The fines imposed were £5, £5 and £3.

Sanitary Inspection.—An assistant inspector has been appointed, thus enabling the routine inspection to be maintained.

TEME (Rural).

Medical Officer of Health ... ... JOHN H. K. GRIFFITHS, M.B.

Area in Acres	23,091
Population *at* 1901 *Census*	1,846
Number of inhabited houses ,, ...	388
Number of person per house ,, ...	4·7

Statistics.

The natural increase of population during the year was 12.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	13·0	·0	·0	1·62	·0	·54	·54	1·08	1·08	166	19·5
Averages for years 1900-1905	*14·4	..	..	..	..	..	..	..	..	..	24·0

* Without the addition of "residents" dying in Institutions situated outside the district.

Three of the six deaths under one year of age were due to congenital defects or premature birth.

Infectious Disease.—Two cases of scarlet fever and one of erysipelas were notified. The infection in the cases of scarlet fever was probably brought from outside the district.

House Accommodation—Adequate and in an average state of repair. There is always sufficient space about the houses and they are mostly clean.

Sewerage and Sewage Disposal.—Sewage is generally disposed of on land, and in some cases it is carried away by water courses.

Excrement Disposal—Mostly by means of privy middens.

Removal of House Refuse —Sufficient land in connection with the houses for its proper disposal.

Water Supplies—Mostly from individual wells. There is a prospect of a satisfactory scheme for Bucknell. The supply of Kinsley is in the same unsatisfactory condition. An increased supply is required for Llanfair.

WELLINGTON (Urban).

Medical Officer of Health ... ... A. E. WHITE, M.B.

Area in Acres	*at* 1901 *Census*	381*
Population	,, ...	6.283
Number of inhabited houses	,, ...	1,327
Number of persons per house	,, ...	4·7

* The figures refer to the District before its extension.

General Character of the District.

"Wellington is the centre of a large agricultural district, and serves as the market for it "and the neighbouring mining and manufacturing district. Six lines of railway converge on "the town and make it easy of access, consequently visitors come in considerable numbers all "through the summer to spend the day on the Wrekin. The area is 684 acres. The subsoil "is clay and gravel drift overlying the lower layers of New Red Sandstone. The surface "levels vary a good deal, and, for the most part, drainage gradients are satisfactory. The "water supply is under the control of the Council, who have water rights over a good deal of "the surrounding rural area. The sewers of the town are modern, and the outfall is beyond "the borders of the town. The roads are under the management of the Local Authority, and "are constantly undergoing improvement. There is a good Market Hall, and slaughtering "is done on private premises, though a public abbattoir would be an advantage in some "respects. The Workhouse is in the town, but in calculating the death-rates for the town, "persons from the rural district have been excluded. The principal industries are the manu-"facture of agricultural implements, furniture, and all kinds of woodwork. There are several "breweries and malthouses, also two or three large and well-equipped Boarding Schools in "the town."

Statistics.

The natural increase of the population during the year was 55. The population at the middle of 1906 is estimated at 7,537.

Period	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	15·2	·79	·13	·79	·79	1·32	·66	1·59	·79	139	23·7
Average for year 1905	15·7	..	..	..	..	..	..	..	..	..	29·7

The high infantile mortality includes 6 deaths from diarrhœa, 8 from wasting diseases, and 3 from tuberculosis. The majority of these were preventable, being due to want of cleanliness, improper food, quack medicines, and lack of pure air. The deaths from tuberculosis show the necessity for very careful inspection of the milk and milch cows.

Infectious Disease.—Sixty-one cases of scarlet fever, 7 of diphtheria, 5 of erysipelas, and 1 of puerperal fever were notified. An introduced case of scarlet fever in February was the origin of the outbreak. All the schools were affected equally and every department, so that there was no case for closure. The spread of the disease was attributed to mild overlooked cases. The town was very free from non-notifiable infectious disease.

House Accommodation.—Ten cases of overcrowding have been dealt with, but probably many more exist.

Drainage and Scavenage.—Plans have been passed for extending the sewage works. The scheme will deal efficiently with the sewage even when the privies are converted to water closets.

Water Supply. The Wrekin and Steeraway supplies met the demand during the dry weather, so that with the well that is to be sunk the supply will be abundant. The Council have decided to construct filters to remove risk from contamination.

Factories and Workshops.—A register is kept and the places visited regularly. The bakehouses are well kept and mostly suitable.

The Slaughter-houses are as a rule satisfactory; one is very unsuitable.

The Cowsheds and Dairies have been visited frequently. It is intended to adopt the model regulations. Many of the cow-keepers do not recognise the necessity for cleanliness.

From the Report of the Nuisance Inspector.

The quantity of water registered by the meters was:—

Wrekin Reservoir	39,738,000 gallons.
Steeraway Reservoir	5,617,000 gallons.
	45,355,000 gallons.

Of which total 8,575,000 gallons were sold by meter. The amount used apart from that sold for trade purposes was at the rate of twelve and a half gallons per head per day. There was no shortage necessitating the water being shut off but it was at times discoloured.

Slaughter-houses—9: visited regularly and kept sanitary and clean.

Bakehouses—19 on register; satisfactory.

Cowsheds—20; They are kept fairly clean, but want remodelling as regards air space, lighting, ventilation and drainage. Attention to this matter is strongly urged.

WELLINGTON (Rural).

Medical Officer of Health ... ... W. T. HAWTHORN, M.R.C.S.

Area in acres	33,791
Population *at* 1901 *Census*	11,773
Number of inhabited houses ,, ...	2,499
Number of persons per house ,, ...	4·7

Statistics.

The natural increase of the population during the year was 141. The population at the middle of 1906 is estimated at 11,573.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	13·8	·95	·26	·95	·17	·60	1·81	2·16	·60	120	25·2
Averages for years 1896-1905	*14·4	..	..	..	..	..	..	..	..	..	34·8

* Without the addition of "residents" dying in Institutions situated outside the district.

The zymotic death-rate was due to seven deaths from scarlet fever, 2 from diphtheria, and 2 from diarrhœa.

Infectious Disease.—Five cases of diphtheria, 19 of erysipelas, 14 of scarlet fever, 2 of enteric fever, and 3 of measles were notified. An epidemic of whooping cough and influenza necessitated the closing of Lawley Council School.

Sewage Disposal.—Hadley.—"A fresh site has been secured which will effectively deal with the sewage from the Trench end of the Parish." A site has been secured for Admaston sufficiently large to deal with the sewage of the whole village.

Water Supply.—Something should be done to remedy the defective condition of the water supply of Rodington. It is probable that the upper portion of the Parish of Wellington Rural District will shortly be supplied from Dawley. The attention of the Council should now be directed to the lower portion of the parish which is equally in want of a good water supply.

Workshops and Factories.—There are 38 in the district and they have all been visited and found satisfactory.

Cowsheds.—There are 18 cowkeepers and milksellers in the district; 15 of the premises have been visited and found satisfactory.

Slaughter-houses—13; all visited. Sanitary improvements have been carried out in ten.

WEM (Urban).

Medical Officer of Health ... JOHN DALLEWY, L.R.C.P., M.R.C.S.

Area in Acres ...	450
Population at 1901 *Census* ...	2,149
Number of inhabited houses ,, ...	453
Number of persons per house ,, ...	4·7

General Character of the District.

"The town of Wem is a well-built market town in the centre of a large agricultural "district and is made up of a number of good houses, shops, cottages, and public buildings. "The town is well paved and lighted by gas. The Union Workhouse is situated in the "District. There are two cemeteries, only one of which is used. Drainage and water supply "are provided."

Statistics.

The natural increase during the year was 22. The population at the middle of 1906 is estimated at 2,240.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	15·2	·0	1·34	·44	·41	·89	1·34	·44	·89	89	25·0
Averages for years 1900-1905	16·1	..	..	..	..	..	..	..	..	..	26·4

Infectious Disease.—Three cases of diphtheria were notified. One was imported and origin of the other two was obscure.

Phthisis has been made a voluntarily notifiable disease.

Disinfection.—A steam disinfector has been obtained to serve the Urban and Rural Districts.

Drainage and Sewerage.—A scheme of sewage disposal is still under consideration. There are now 145 water closets, 364 pan or box closets, and 27 cesspits or earth closets.

House Accommodation.—Good. Bye-laws are in force with regard to new streets and buildings.

Water Supply.—From a well at Preston Brockhurst. It is abundant and excellent.

Factories, Workshops and Lodging Houses, have been regularly inspected and found satisfactory.

WEM (Rural).

Medical Officer of Health ...	JOHN DALLEWY, L.R.C.P., M.R.C.S.	
Area in Acres		52,001
Population *at* 1901 *Census*		8,266
Number of inhabited houses ,, ...		1,840
Number of persons per house ,, ...		4·5

Statistics.

The natural increase of the population during the year was 75. The population at the middle of 1906 is estimated at 8,265.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	13·3	·24	·48	·36	·24	1·33	·84	1·45	·84	55	21·9
Averages for years 1896-1905	*13·0	..	..	..	..	..	..	..	..	..	25·0

* Without the addition of "residents" dying in Institutions situated outside the district.

The zymotic death-rate was due to 1 death from whooping cough and 1 from diarrhœa.

Infectious Disease.—Three cases of diphtheria, 4 of erysipelas, 4 of scarlet fever, and 1 of enteric fever were notified.

Edstaston and Stanton schools were closed on account of outbreaks of whooping cough.

Schools.—Prees School requires re-draining and the provision of proper urinal accommodation. Improvements have been made to the drainage of Whixall Council Schools. The water supplies are on the whole satisfactory.

House Accommodation.—Fairly good. A house to house inspection has been made.

New Houses.—The Council has no control over the erection of new houses.

Water Supply.—In addition to plans for supplies to Prees and Whixall submitted last year, plans have been got out for supplying Tilley, Barker's Green and Aston, with water from the Urban Council's main. Several wells have been rebuilt and sources of pollution removed.

Sewerage and Drainage.—The scheme for the sewerage of Prees has not been adopted.

Inspections under Factory and Workshops Act.—A register is kept and inspections have been made by the Medical Officer of Health, and Sanitary Inspector.

Slaughter-houses have been inspected and found satisfactory.

Dairies and Cowsheds.—Regulations came into force January 1st, 1907.

Control of Infectious Disease.—Phthisis is now voluntarily notifiable. The only hospital is one for smallpox. The Council have decided to purchase a steam disinfector, conjointly with the Urban District.

WENLOCK (Urban).

Medical Officer of Health ... ... M. GEPP, L.R.C.P.E., D.P.H.

Area in Acres	22 657
Population *at* 1901 *Census*	15,866
Number of inhabited houses ,, ...	3,568
Number of persons per house ,, ...	4·4

Physical Features and General Character of the District.

"The District comprises 22,522 acres, exclusive of water, being the largest Borough in "area in the country. This area is of very irregular outline, but is, roughly, some ten miles "in greatest length from north to south-west, and has a mean breadth of some four miles, "being narrowest where the Severn, traversing the district from west to east, makes a natural "division, the part lying to the south of the river having three or four times the area of the "northern part, though with less than half the population.

"The District is for the most part a tableland lying at an elevation of from 400 to 600 "feet or more; the Severn forming a deep cutting through this elevated land, its banks "rising very steeply on either side from about 150 feet O.D. at the water level to the general "height of about 500 feet O.D. The central and eastern part, nearly half the area, lies upon "the coal measures. To the west the formation is the Wenlock and Ludlow beds of Silurian "age, forming a considerable part of the southern division, and extending also to a limited "extent across the river into the northern division. Much of this ground lies in ridges with "intervening valleys at a height of from 600 to 800 feet. At the southern extremity the Old "Red Sandstone occurs. The natural drainage is to the Severn, by small streams falling "as a rule steeply into the river within the District, but the southern part of the southern "area drains to the south by small streams which meet the Severn some distance outside the "district.

"The district is in large part industrial, the chief industries being coal and iron mining, "iron manufactures, and brick and tile works. There is also a large china factory. These "industries are confined to the northern area together with a small part of the southern area "near the river. The greater part of the southern area is entirely rural and agricultural, and "thinly populated. For purposes of local administration the borough is divided into four "wards, each having a separate Sanitary Committee acting as the Sanitary Authority. These "wards, with their area, population, and general character, are as follows:—

Ward.	Area in Acres.	Census Population 1901.	Situation.	General Character.	Penny rate produces
Madeley	2797	8442	North of Severn ..	Urban and Industrial, Coal and Iron .	£89
Broseley	1962	3916	South of Severn ..	Urban and Industrial. Brick and Tile	£44
Much Wenlock	8751	2210	South of Severn ..	Agricultural	£32
Barrow	9012	1298	Both sides of Severn	Agricultural	£20

WARD.	Birth-rate.	Death-rate.	Infantile Death-rate.	Epidemic Death-rate.
Madeley	29·2	16·0	93	1·18
Broseley	26·9	17·4	95	3·58
Wenlock	20·0	16·4	177	2·67
Barrow	21·6	14·7	71	2·32
Borough	26·8	16 3	101	2·07

Statistics.

The natural increase of the population during the year was 166. The population at the middle of 1906 is estimated at 15,914, and corrected for public institutions, 15,920.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	16·3	2·07	·56	1·38	·88	·81	1·06	2·38	·75	101	26·8
Averages for years 1897-1905	17·0	1·23	..	..	..	..	..	..	..	109	27·7

The zymotic death-rate was due to 7 deaths from measles, 3 from scarlet fever, 15 from whooping cough, and 8 from diarrhœa.

Infectious Disease.—Scarlet Fever, 59 cases were notified, 24 of which were in Broseley, 22 in Madeley, 10 in Wenlock, and 3 in Barrow. The Madeley National Infants' School, the Broseley National School and Legge's Hill School were closed and caution bills circulated. Only 1 case of *Diphtheria* was notified, and one case of *Enteric Fever*, probably imported. *Whooping Cough* was very prevalent and necessitated the closing of 9 elementary schools. Seven schools were closed on account of measles. Nearly all the schools in the Borough were closed at one time or another on account of infectious disease. Closure is advised for measles and whooping cough as soon as 7 to 10 per cent. of the children are affected.

Phthisis.—A small sanatorium would be of great advantage in coping with the relatively high death-rate and the possibility of providing this out of the "Lady Forester Charity" is suggested.

Isolation Accommodation.—An iron hospital for 8 beds for small-pox at Broseley; no accommodation for the ordinary infectious diseases.

Disinfection.—No disinfecting station; disinfection of rooms by the Sanitary Inspector with a sprayer.

Water Supply.—Broseley and Madeley—From a deep well in the New Red Sandstone at Harrington; scheme completed in 1902. The mains have been extended and water laid on to 142 more houses. The water was analysed during the year and found to be good; hardness, 16° to 16·5° Clark's scale.

Much Wenlock is supplied from a deep well in the Shale Measures of the Wenlock Limestone. The water runs short at times and for the purpose of adding to it, the spout supply in Stretton Road has been investigated. This supply varied from 17,000 gallons to 4,944 on September 29th, after a dry summer. No steps have been taken to utilise this water.

Rowton is supplied from a spring, the water being raised by a ram.

In the remaining portions of the district the water supply is from individual pumps and springs.

Sewerage and Drainage.—The drains are for the most part old and unsound and their improvement should be steadily pushed forward. The sewers of the various towns are generally old and imperfect, and their outfalls are either directly into the Severn or into streams which fall into the Severn. There is no provision for flushing or ventilation of the sewers and complaints of nuisance are not uncommon. "Improvements both in the sewers themselves and in the disposal of sewage are very desirable and will become more so with increase of water carriage following upon water supply schemes carried out." In Much Wenlock and Broseley there appear to be no great difficulties in disposing of the sewage, but in Ironbridge and Jackfield the problem is most difficult. Considerable work has been done in the improvement of house drains. The necessity for a sewer up Stretton Road, Much Wenlock, is pointed out.

Excrement Disposal is mostly by privies with underground vaults, the scavenging of which except in Madeley is done by occupiers or owners. A good many privies have been converted to water closets in Much Wenlock in recent years. The absence of a satisfactory sewer has often prevented this conversion.

Scavenging.—There is public scavenging in Madeley on request sent to the Surveyor; elsewhere it is done by the occupiers or owners. In Broseley there are some public ashpits emptied by the Committee.

Housing.—Generally speaking the houses are old and show defects of faulty construction, and many need constant attention to keep them fit for habitation. There is some evidence of improvement due to routine inspection. No house was closed under the Housing of the Working Classes Act, 1890.

Permissive Powers.—The Infectious Disease (Prevention) Act, 1890, and the Public Health Acts (Amendment) Act, 1890 (except Part IV.) are in force, also bye-laws with respect to Common Lodging Houses and Slaughter Houses.

Dairies, Cowsheds, and Milkshops.—Regulations were adopted during 1905 and the necessity for registration has been advertised, so far without result.

Attention is drawn to the second interim report of the Royal Commission on Human and Animal Tuberculosis and a systematic veterinary inspection of milch cows is strongly recommended. It is pointed out that during the past 7 years 53 deaths have taken place from tuberculosis other than phthisis, and that 33 of these are amongst children under 5 years of age when milk should form a staple article of diet.

Common Lodging Houses—2, frequently inspected.

Slaughter Houses.—The registration should be enforced.

Bakehouses—30 on register. Regular inspection has resulted in much improvement.

Sale of Food and Drugs Act.—Twenty-four samples were taken, and 2 were found to be adulterated.

WHITCHURCH (Urban).

Medical Officer of Health ... ... M. Gepp, L.R.C.P.E., D.P.H.

Area in Acres ...	4,784
Population at 1901 *Census* ...	5,221
Number of inhabited houses ,,	1,129
Number of persons per house ,,	4·6

Physical Features and General Character.

> "The Urban District lies within the northern border of the county, and comprises a considerable area of agricultural land surrounding the town of Whitchurch. The general elevation varies from about 270 feet to 350 feet above Ordnance datum. The subsoil is the red marl of the new red sandstone. The town occupies the centre and higher part of the district, the fall of the ground being from south and east to west and north-west, and the natural drainage by small brooks leaving the district towards the north-west, as tributaries of the Dee. The centre of the town is old and compact, considerable extensions of more recent buildings existing along some of the main roads radiating from the town. The surrounding parts of the district are entirely rural and agricultural, extending some two to three miles to the north-east and south west of the town and to about a mile to north-west and south-east. Whitchurch is a market and residential town, and the land around is extensively employed for grazing and dairy farming. It is the centre and market of a large cheesemaking industry. There is a brewery, maltings, a tanyard, and engineering works."

Statistics.

The natural increase of the population during the year was 66. The population at the middle of 1906 is estimated at 5,374, and corrected for public institutions. 5,320.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	16·5	·56	·18	1·69	·37	·75	·56	2·44	2·06	91	28·9
Averages for years 1897-1905	15·0	·99	..	..	..	..	..	..	..	103	26·3

Infectious Diseases.—The zymotic rate was due to 1 death from scarlet fever and 2 from diarrhœa. Seventeen cases of scarlet fever, 26 of diphtheria and 1 of erysipelas were notified. A special report was presented on December 4th, dealing with 23 out of the 26 cases of diphtheria, in which it was shown that in spite of the care exercised to exclude children, infection was brought into the school by slight unrecognised cases or by "carrier cases" (children carrying the infection without having the disease). This outbreak demonstrated the need for routine medical inspection of schools. The schools were closed from November 23rd to February 4th of this year, but with regular medical inspection, including daily search for suspects, the school might have been kept open and the outbreak possibly controlled earlier.

Isolation Accommodation—No isolation for the ordinary infectious diseases. There is a Joint Hospital for small-pox with 8 beds on Prees Higher Heath.

Disinfection.—Rooms are sprayed by the Sanitary Inspector.

Water Supply.—There is a public supply laid on to the houses. The water works are at Fenns Bank, and the water is derived from wells in the drift under grass land, and from three new borings through clay into beds of sand. The water is run to the water works, softened to 7° Clark's scale, and pumped to a covered reservoir. The supply was laid on during the year to 15 new houses and 6 houses not previously connected. There are very few houses supplied from private pumps.

Sewerage and Drainage.—The town is well sewered on modern lines, and the sewers are ventilated by rotary extractors. The main outfall is flushed daily with 4,000 gallons of canal water. The outfall works consist of 2 small settling tanks and 70 acres of pasture land for irrigation. The distribution on the land has been improved.

Drainage Regulations under sec. 21 Public Health Act, 1875, are in force.

Excrement Disposal.—Nineteen privies were converted to water closets during the year. Within the area of the public water supply there are about 820 houses with water closets and 220 with privies or earth closets.

Scavenging.—The question of the removal of house refuse has been under consideration and it has finally been decided to institute weekly removal from the more thickly populated and poorer parts of the town, the refuse to be placed in front of the houses in bins. The scheme provides for a weekly collection from 208 houses.

Housing.—Of recent years there has been a considerable number of new cottages built. In the yards and old streets there are many houses that require frequent supervision to keep them fit for habitation. Six houses were certified as unfit for habitation. The Sanitary Committee on visiting decided that if the houses were altered they might be left open and notice was accordingly served.

Permissive Powers.—Part III of the Public Health Acts (Amendment) Act, 1890, and the Infectious Disease (Prevention) Act, 1890, with the exception of secs. 5, 6, 15 and 17, are in force. Bye-laws are in force with respect to Nuisances, New Streets and Buildings, Slaughter Houses, Common Lodging Houses, and Tents, Vans, etc.

Dairies, Cowsheds and Milkshops Regulations are in force. The number of dairies, etc. on the register is 28. They are inspected quarterly.

Slaughter Houses —7 on the register, inspected regularly and kept in a satisfactory state.

Common Lodging Houses —4 on the register. They are old premises but are inspected regularly and kept clean.

WHITCHURCH (Rural).

Medical Officer of Health ... ... M. GEPP, L.R.C.P.E., D.P.H.

Area in Acres	11,701
Population at 1901 *Census*	1,924
Number of inhabited houses ,, ...	424
Number of persons per house ,, ...	4·5

Physical Features and General Character.

> "The District lies within the northern border of the county, adjacent, along its northern "boundary, to the Whitchurch Urban District. The general elevation is from 300 to 400 feet "O.D., the contour being gently undulating. The subsoil is the red marl of the new red "sandstone, with the exception of a small area in the south-east, where an outlier of the Lias "occurs at Ightfield. There is generally a considerable thickness of morainal drift covering "the strata. The natural drainage is by small streams to north and south, the water-partings "between the Weaver, Dee, and Severn river systems crossing the District. The District is "entirely rural in character, and the population scattered, the small villages of Tilstock, Ash, "Broughall (all in the large parish of Whitchurch Rural), and Ightfield, comprising the main "collection of houses. The land is largely employed for grazing and dairy farming. The "District is naturally very healthy, the average death-rates for preceding years being low."

Statistics.

The natural increase of the population during the year was 22. The population at the middle of 1906 is estimated at 1892, and corrected for public institutions, 1910.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1906	12·6	1·05	·52	·52	·0	2·10	·52	1·57	·52	114	23·0
Averages for years 1897-1905	13·1	·57	..	..	..	..	..	..	..	74	25·4

The zymotic death-rate was due to one death from diphtheria and one from whooping cough.

Infectious Disease.—Four cases of scarlet fever and 11 cases of diphtheria were notified. Five of the cases of diphtheria occurred in one house at Broughall. The origin was obscure and the school was closed as a precaution.

Hospital Isolation —A joint hospital for small-pox on Prees Higher Heath There is no isolation accommodation for the other infectious diseases.

Disinfection by the Sanitary Inspector by means of a spraying apparatus.

Water Supply.—At Broughall, Tilstock and Ash wells have been sunk with proper structural precautions and in good situations, and pumps provided. Ightfield has had a pump open to the public for many years. Elsewhere individual houses and groups of houses depend upon shallow wells, etc., many of which are liable to contamination. The Council's intention is to deal with the supplies to the smaller groups of houses; a deep well at Melverley is being protected.

Drainage and Excrement Disposal.—Tilstock is drained by three road water drains; two discharging into the brook and a third on to land.

At *Broughall* the Council has recently laid a length of sewer to remove sewerage from the roadside and connected it with the existing sewer. The outfall is into a small stream.

Elsewhere houses mostly drain on to gardens and land, or into ditches or streams.

Excrement disposal is mostly privies with vaults.

Housing.—Fair on the whole, although there are a good many old houses requiring regular inspection.

Permissive Powers.—The Public Health Acts (Amendment) Act, 1890, is not adopted. Th Infectious Disease (Prevention) Act, 1890, is adopted with the exception of secs. 5, 6, 15 and 1 Bye-laws are in force with respect to Private Scavenging, Common Lodging Houses, Nuisances, New Streets and Buildings.

Slaughter Houses —No Bye-laws; one slaughter house.

Dairies, Cowsheds and Milkshops.—Regulations are in force. Some of the cowsheds do not comply with the regulations as to lighting and drainage, but these are being dealt with.